

UNIVERSITÉ DE COPENHAGUE  
CAHIERS DE L'INSTITUT DU MOYEN-ÂGE GREC ET LATIN  
publiés par le directeur de l'Institut

- 45 -

T H E H A G I O P O L I T E S  
A Byzantine Treatise on Musical Theory  
Preliminary edition by Jørgen Raasted

COPENHAGUE 1983

I kommission hos (distributeur) :  
ERIK PALUDAN - INTERNATIONAL BOGHANDEL  
FIOLSTRÆDE 10, DK-1171 KØBENHAVN K



trykt på genbrugspapir

ISSN 0591-0358  
**Stougaard Jensen/København**  
Un 55-3

## INTRODUCTION

Damaged by water and worms, defective at the end, and marred by innumerable copyist's errors, folios 216-237 of the factitious Paris manuscript *Ancien fonds grec 360* have attracted the interest of musicologists and lexicographers at least since 1688, when Ducange published his "Glossarium ad Scriptores Mediae & Infimae Græcitatis" and quoted a number of passages from the manuscript. Since then, this mutilated collection of texts and fragments, all of them dealing with Greek or Byzantine musical theory, has been normally referred to as the *Hagiopolites* - a title which is found at the beginning of the collection and is explained in its first paragraph. For the time being I shall continue to use "*Hagiopolites*" in the traditional way, i.e. as a global reference to all the texts actually found on these twenty-two folios of the Paris manuscript ("P"). I should like to point out, however, that I still have my doubts about the correctness of the way in which the title has been understood. I express my basic ideas on this point in Note 3 to § 1, but at present I do not want to be more specific.

The *Hagiopolites* has been used by Vincent in 1847, by Tzetzes in 1874, Thibaut 1913, Høeg 1924, Floros 1970 - just to mention a few names - and there exist at least three complete copies taken from P: one by François Louis Perne in 1811 (Brussels, Bibliothèque Royale, Inv. No. II, 4159), another by Theodoros Sypsomo in 1856 (Leningrad, Petropolitanus graecus 140, Muralt), and a copy made by Carsten Høeg ab. 1920 (two note-books, belonging to the *Monumenta Musicae Byzantinae*). Vincent's "Notice sur divers manuscrits grecs relatifs à la musique"<sup>1</sup> contains on pp.259-81 text and translation of §§ 90-97 and 100-05; Thibaut's "Monuments de la Notation Ekphonétique et Hagiopolite de l'Eglise Grecque", Saint-Pétersbourg 1913, on pp.57-60 gives the Greek text of §§ 1-27 according to the Paris manuscript, and §§ 1-5 after Sypsomo's copy as well. But no complete edition of the *Hagiopolites* has ever been made.

The physical state of P is rather bad. Until the book was repaired in the 1960s, its paper was constantly decaying, and whenever a scholar worked his way through the 22 folios, letters or even entire words got lost. A great deal of the damage can be dated to the winter of 1810-11, in connection with Perne's fight to overcome the difficulties of decipher-

---

1. Notices et extraits des manuscrits de la Bibliothèque du Roi et autres bibliothèques. XVI,2. Paris 1847.

ing: his activity actually made the size of many holes grow considerably! But subsequent copies and old photographs show that the process continued; no doubt, the last losses were due to the final rescue operation, twenty years ago.

\*

At that time, I had already begun to collect material for an edition. I had typed a working copy (from a microfilm put at my disposal by Oliver Strunk) and collated this typed text with the original in Paris in April 1960. During the following years I returned to my material on several occasions, mainly in connection with university teaching; but for obvious reasons the material was not yet ripe for publication.

In 1971, only a few days before I went to Göttingen with a lecture on "The Hagiopolites. Problems of a critical edition", I came across a new source for §§ 56-96 and 98-99, the *Sinaiticus graecus* 1764 ("S"). This late manuscript<sup>1</sup> descends from the same manuscript as part of the Hagiopolites - their common contents being, in the main, an incomplete text of the third of the *Anonymi Bellermannii* - and it can be used to control or to correct many of the corrupt readings of P.<sup>2</sup>

In 1973, during a stay in Brussels, I happened to find Perne's apograph of P. The main importance of this source is that it makes us realize what the Paris manuscript looked like in 1811. For the constitution of the text it is of little help, since the later losses can be supplied by emendation, also without access to Perne.<sup>3</sup>

In April 1981, the Editorial Committee of the new subseries of Monu-

---

1. More likely written in the 18th century than earlier. In his Teubner edition of the *Anonymi Bellermannii*, Najock describes the manuscript as *saec. XVI ut videtur variis manibus scriptus*: but the early date is only certain for the beginning, not for folios 92r sqq. - our present concern. The hand of these folios resembles that of one Nicephoros Glykys, a Sinai monk of Cretan origin, who once owned the manuscript (entry on fol. 5r: ἐκ τῶν νυκτιφόρου ἱερομόναχου σιριατοῦ τοῦ γλυκέως κρητὸς).
2. In a revised shape my Göttingen lecture has been published in *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, Band 125: *Überlieferungsgeschichtliche Untersuchungen*, hrsg. v. Franz Paschke, Berlin 1981, pp. 465-78, with the title "The manuscript tradition of the Hagiopolites: A preliminary investigation on Ancien Fonds Grec 360 and its sources".
3. I still have had no access to Theodoros Sypsomo's copy from 1856; but there is little chance that we shall learn much about the text from it - except, maybe, for a few cases where Perne was not able to read words which were lost between 1856 and 1920, the approximate date of Høeg's copy.

menta Musicae Byzantinae, the *Corpus Scriptorum de Re Musica*, at a meeting in Vienna discussed the proper way of handling the *Hagiopolites*. The fact is that the Paris compilation has a quite complicated structure: Its beginning contains Byzantine musical theory (§§ 1-55), but evidently reflects various stages of musical notation, some sections dealing with Coislin notation, others with Middle Byzantine notation.<sup>1</sup> The rest (§§ 56-105) consists of Ancient Greek musical theory - again, apparently, taken from various contexts: §§ 56-89 and 98 incorporate most of *Anonymous III Bellermannii*; § 99 is one of the diatonic scales known from Alypius; §§ 90-97 and §§ 100-105 are only known from P and S, or from P alone.

This complicated structure seemed to dictate a different treatment for each of its constituent parts. The paragraphs from the *Anonymous III Bellermannii* have recently been edited by Najock,<sup>2</sup> and the readings of P and S are incorporated and discussed in his editions. A re-edition would therefore be superfluous - and misleading, too, if the text were properly emended; for a solidly emended text would most certainly be far better than the text was when it got into the *Hagiopolites* compilation. The remaining Ancient paragraphs, on the other hand, have not been edited since 1847, and the need for a thorough revision is obvious, also because of the discovery of the Sinai manuscript. The real difficulty, however, is to be found in the Byzantine texts (§§ 1-55). For although no other direct manuscript source for these paragraphs is known, their contents have been quoted or paraphrased or referred to in many Metabyzantine treatises on music. Consequently, the entire corpus of later treatises ought to be sifted before our difficult text could be properly edited and provided with the necessary *Realkommentar*. This procedure, however, would not be possible as long as the texts had not been critically edited - and for such critical editions, a publication of the *Hagiopolites* texts would be a great help!

On the strength of these considerations, the Editorial Committee decided to edit the *Hagiopolites* twice: A preliminary edition should be made

---

1. § 11, however, belongs to the Ancient material, and must have been moved to its present place from § 87.

2. Dietmar Najock, *Drei anonyme griechische Traktate über die Musik. Eine kommentierte Neuausgabe des Bellermannschen Anonymus*. Göttinger Musikwissenschaftliche Arbeiten, Band 2, Göttingen 1972 (with a German translation). - *Anonyma de musica scripta Bellermanniana*, edidit Dietmar Najock, Leipzig 1975 (Bibliotheca Teubneriana).

immediately, in a dozen duplicated copies for distribution among the editors of the other theoretical texts and would-be collaborators. And at the end of the entire publication work - with the relevant texts accessible in the *Corpus Scriptorum de Re Musica*, or at least thoroughly studied - a full size edition, with photographs of the 44 pages of the Paris manuscript, with translation, detailed commentaries, etc. should close the series.

When I returned from Vienna and reported to my Institute's Board, our Director - Jan Pinborg - immediately suggested one change in these plans: to let my preliminary edition be printed in the *Cahiers* of the Institute, instead of manufacturing only a handful of duplicates.

\*

I have found it necessary to give this brief survey of the *genesis* of the present edition. Let me now proceed to describe what the reader can expect to find in it:

First and foremost it should be remembered that this "edition" is devised and planned as a *working tool*, primarily to simplify the task for the editor or editors who some day will be ready to make the final edition. In the meantime, it is my hope that others as well may find it useful, in spite of its evident imperfections. Not wishing to delay a provisional publication of the text, I decided to publish it as soon as I had worked my way through all 105 paragraphs. My notes and a good many details in the text itself reveal inconsistencies which might have been avoided if I had spent another year or more on a revision. But this, in my opinion, can as easily be done by the benevolent reader.

On the single elements of the edition I have the following remarks:  
THE GREEK TEXT: In principle, the right-hand columns render the text as found in P, including its punctuation. In two respects, however, I have had to normalize:

1. Since it is quite often impossible to see the exact shape of the breathings, I have preferred to normalize - also in the cases where the reading is clear. The opposite would have conveyed a false impression of accuracy.

2. For similar reasons I have simplified the punctuation, using a comma whenever I felt sure that this was in the manuscript, but not trying to make any distinction between " ." and " ; " etc. Notwithstanding this precaution I am convinced that a renewed comparison with the original will lead to a number of changes. Besides, it is my impression that many of the

punctuation signs were added later. I have not tried to render this detail in my transcript. The left-hand columns contain the texts in their emended shape, provided with a punctuation of my own. Of course, this is not the final text: The *cruces* and blanks indicate places where I am sure that there is something wrong; but besides, there are numerous readings where I am not sure myself<sup>1</sup> - and no doubt as many where I have overlooked the difficulties.

NB. In the paragraphs which are taken over from the *Anonymi Bellermani*, my aim has been to reconstruct, as far as possible, the corrupt text of the manuscript from which P and S descend. The resulting text is absurd, of course, and therefore cannot be translated. But it gives us an idea of what the compiler of the *Hagiopolites* had at his disposal. For the benefit of those who take an interest in the *Anonymi Bellermannii*, I have underlined all words which deviate from Najock's text.<sup>2</sup>

THE CRITICAL APPARATUS: I have not recorded the many misreadings of Perne's (nor the few of Høeg's), except for cases where they seem to be of some use for the constitution of the text. Also non-recorded are the cases where Perne's use of pencil reveals his working technique.<sup>3</sup>

NB. In the *Anonymi Bellermannii* paragraphs, the siglum "Anon" represents Najock's text. If this text is based on conjecture, a scholar's name will be added in parenthesis. If it is not the reading of all Najock's MSS (ABCD), the source will be added. If there is no parenthetical addition, the text is found in ABCD (or ABC, where D does not have the text).

The *variatio sermonis* of my Latin is unintentional.

THE TRANSLATION: The translation has been made *en route*, together with the notes. It is to be understood as a kind of running commentary, and should be used in connection with the Greek text. Frequently, especially in the beginning, it is rather a paraphrase than a translation. Passages which I

1. These are always mentioned in the critical apparatus, normally also in the notes.

2. The underlined words in the *right-hand* columns mark off all cases where P deviates from the model manuscript (as reconstructed in the left-hand columns). I am afraid that I have not been entirely consistent in this matter, having left a number of P's orthographical peculiarities unmarked.

3. My dossier contains a complete material for a study of this detail. It may be of some interest, as a sample, but not in the present context.

do not understand are indicated either by questionmarks or by word-by-word translation between inverted commas. Clarifying additions are added in brackets, quite often in Italics.

The terminology, inevitably, has caused trouble, and my solution of the problems is far from being uniform. Quite often I have preferred to use the Greek words themselves - e.g. *Echos*, *Tonos*, *Mesos*. Some expressions have been rendered differently, depending on the context. Thus, my English text indiscriminately uses "Plagios Deuteros", "Second Plagal", and "the plagal of Deuteros".

THE NOTES: The notes deal primarily with matters which concern the wording of the Greek text. Sometimes, it has been necessary to go into the substance of the text, in connection with textual difficulties. Bits of genuine *Real-kommentar* do occur, now and then, but are never fully elaborated. The detailed commentary belongs to a future stage of the project, the authoritative *Corpus* edition.

THE INDEX: A complete *Index verborum* must also be postponed. In its present shape, the text is still so full of errors and uncertain readings that an all-comprehensive index would be misleading. At present, a selective index of terms is to be preferred. The index, however, includes a complete *Index nominum*.

The mixture of Ancient and Byzantine texts is reflected, also, in the index: Words which occur in the Ancient paragraphs (11 and 56-105) are marked off by means of the asterisk (\*). If words occur in both layers, there will be two entries.

CHAPTERS and PARAGRAPHS: Red initial letters divide the *Hagiopolites* text in 30 sections or chapters, of varying length.<sup>1</sup> In the parts which are common to P and S, the two manuscripts agree in their divisions, though S occasionally has extra initial letters, not found in P. Apparently, then, the system was taken over from the model manuscript. I have used Roman numbers to indicate the thirty sections of P.

The division into paragraphs is my own, except for those paragraphs that contain the *Anonymous Bellermannii*. Here one obviously has to keep the old

---

1. The rubricator forgot to write initial letters in §§ 36, 70, and 101. The initial letters are now lost at § 4 and, presumably, at § 94. The lay-out at the beginning of § 52 is peculiar (see notes) but seems to reflect a division in the model manuscript; I have treated this place as if the indication of a new section was a regular one.

In S, all chapters have headings. These are listed in Najock 1972, p.216.

division, the one introduced by Bellermann in 1841. The following Concordance enables a rapid orientation:

Concordance of the *Anonymus III Bellermannii* and the *Hagiopolites*:

ANON	HAG	ANON	HAG	HAG	ANON	HAG	ANON
33	77	52	71	56	58	71	52
34	78	53	72	57	59	72	53
35	79	54	73	58	60	73	54
36	80	55	74	59	61	74	55
37	81	56	75	60	62	75	56
38	82	57	76	61	63	76	57
39	83			62	64		
40	84	58	56	63	65	77	33
41	85	59	57	64	66 <sup>1</sup>	78	34
		60	58			79	35
42	67	61	59	65	50	80	36
43	68	62	60	66	51	81	37
44	69	63	61			82	38
45	70	64	62	67	42	83	39
46	70a	65	63	68	43	84	40
47	70b	66 <sup>1</sup>	64	69	44	85	41
48	70c			70	45		
49	70d	66 <sup>2</sup>	86	70a	46	86	66 <sup>2</sup>
		67	87	70b	47	87	67
50	65	68	88	70c	48	88	68
51	66	69	89	70d	49	89	69
		78	98			98	78

\*

I had planned to include a thorough codicological description of P and S in the present edition and to return, also, to the discussion between Na-jock and myself on the order of the *Anonymus* paragraphs in P.<sup>1</sup> The latter question, however demands a quite lengthy argumentation which would lead this introduction off its track; so it better be taken up in another con-

---

1. See my article referred to above (p. 2, note 2) and pp. 215-16 of Na-jock's Göttingen edition from 1972 (above, p.3, note 2).

text. As to the codicological description, it will find a more appropriate place in the final edition, with its reproductions of all 22 folios of P and a representative material from S.

At the Second International Colloquium on Greek Palaeography and Codicology (Berlin and Wolfenbüttel, October 17-21, 1983) I discussed the dating of P with a number of colleagues; the *communis opinio* still is that P was written in the first half of the 14th century. There are no visible watermarks.

\* \* \*

Since I began to work on this edition, a quarter of a century ago, I have discussed the text and the manuscript with a great number of friends; students, colleagues, and others. I have, in fact, drawn heavily and shamelessly on the expertise of others. It is impossible for me to specify for each of them what kind of help I have experienced, and any attempt to do so would fail to match reality. I cannot send this book to the press, however, without mentioning the names of three persons who have been more actively engaged in the final stage of the work than anybody else:

Sten Ebbesen, the Director of our Institute, to whom I am indebted for advice on text, translation, and notes for almost every paragraph. He is also the one who, in his capacity of editor of the CIMAGL, with mild but efficient pressure has forced me to keep the dead-line as settled a year ago.

Bjarne Schartau, who has been involved in the work since 1965, not the least on codicological matters. In the critical moment, where time pressure was most heavily felt, he offered his assistance and typed most of the Greek text and the critical apparatus, and also prepared the Index.

Hannah Krogh Hansen, the efficient secretary of the Institute, who has typed most of the translation and the notes, and has mounted the offset material as competently and elegantly as could be wished for.

Jørgen Raasted

Βιβλίον Ἀγιοπολίτης, συγκεκροτημένον ἐκ τινων μουσικῶν  
μεθόδων.

I 1. Ἀγιοπολίτης λέγεται τὸ βι- P: Ἀγιοπολίτης λέγεται τὸ βι-  
βλίον, ἐπειδὴ περιέχει ἀγίων τι- βλίον, ἐπειδὴ περιέχει ἀγίων τι-  
νῶν καὶ ἀσκητῶν βίων διαλαμψάντων νῶν καὶ ἀσκητῶν βίων διαλαμψάντων  
[ . . . ] ἐν τῇ ἀ[γίᾳ] πόλει [ 6 litt] ἐν τῇ ἀ[ 3 ] πόλει  
5 τῶν Ἱεροσολύμων, συγ[γρα.....] τῶν Ἱεροσολύμων, συγ[ 8 ]  
παρά τε τοῦ κυροῦ Κοσμᾶ καὶ τοῦ παρά τε τοῦ κυροῦ Κοσμᾶ καὶ τοῦ  
κυροῦ Ἰωάννου τοῦ Δαμασκηνοῦ κυροῦ Ἰωάννου τοῦ Δαμασκηνοῦ  
τῶν ποιητῶν. τῶν ποιητῶν\*

Cf cod S fol 99r

post 2 ἐπειδὴ desinit Perne 4 [πατέρων] Vincent 5 συγ[γράμματα.] Vin-  
cent, σύγ(συγγραφέν?) Theodoros Sypsono 6 [τοῦ ὁσίου Κοσμᾶ] Vincent,  
τοῦ κυροῦ Κ..μᾶ recte Sypsono, τ[οῦ] ἀγ[ίου Κοσμᾶ] Gastoué 8 post ποι-  
ητῶν ita interpusxit Vincent, ut §2,1-2 cum praecedentibus cohaereant

TRANSLATION:

Hagiopolites, a Book Put Together From Several Treatises on Music.

1. This book is called "Hagiopolites" because of its contents, works on saints and ascetics in the Holy City of Jerusalem, written by Master Cosmas and Master John of Damascus, the poets.

NOTES:

\* 1. Until now, no convincing remedy has been found to supply the illegible words in lines 4-5. Evidently, the book got its title ("Hagiopolites") from its contents; but what kind of texts did it contain? Texts to be sung, no doubt, cf. §2,1-2; and written by Kosmas and John of Damascus. Now, if the object for περιέχει (2) did not follow until in line 5, the obvious reading would be συγ[γράμματα] and our problem would be what to supply in line 4. But if the object came already in line 4, we would like to take 5-8 as a *participium conjunctum*, an apposition to this object - to be supplied as συγγραφέντα, συγγραφέντας, or συγγραφέσσας depending on our filling out of the lacuna in 4. In any case, the word missing in 4 ought then to mean "chanted pieces", and the genitives in 2-3 should be understood as "the saints and ascetics celebrated in these hymns". Concerning the illegible word in 4 we know that it was rather short (space for no more than five letters), and from the unclear traces of the top of some of its letters it seems unlikely that the word was τροπάρια or κανόνας. Maybe ἄσματα or ὥδας? Another line of thought is suggested by the related text in Vatican gr.872 (Tardo, p.164) which speaks of τῶν ἀγίων μαρτύρων ὁσίων τέ καὶ λοιπῶν πολυ- τέλα. Unfortunately, our illegible word cannot possibly be πολυτέλαν; but ἔργα, perhaps. Finally, it cannot be excluded that the illegible word was an adjective, belonging to βίω. Βίω διαλαμψάντων ὁσίω?

\* 2. The punctuation in lines 3 and 5 is interesting but leads to no safe interpretation of the context. The dot after διαλαμψάντων may serve to iso-

late ἀγίων - διαλαμψάντων, and the comma after 'Ιεροσολύμων ought to indicate that the localization "in the Holy City of Jerusalem" refers back. But in this case, our ideas about the meaning of the first word in line 4 should be accordingly revised. It should be remembered, however, that the punctuation of P is somewhat capricious, at times utterly misleading.

\* 3. There is a curious conflict between the explanation of the term *Hagiopolites* in §1 and the use of the word in the headline. In §1, "*Hagiopolites*" refers to a collection of musical texts written by poets from Jerusalem, but the "*Hagiopolites*" of the headline is clearly described as a conglomeration of "musical methods", i.e. of theoretical texts. One possible explanation would be (1) that the title originally belonged to a collection of hymns - a *τροπολόγιον*, for instance - (2) that §§1-55 (or an earlier stage of this text) was written as a theoretical 'companion' (wherefore it quite naturally explained why the collection was called *Hagiopolites*), (3) that the 'redactor' who combined the old treatise with Ancient material (§§56-105) took over the title from §1, but added a very precise description of his own product ("put together from several treatises on music").

2.	" <i>Ηχους δὲ [λέγουσιν] ἐν τού-</i>	P: <i>ηχους δε[ 3-4 ] ἐν τού-</i>
	<i>τῳ ὀκτῷ ψάλλεσθαι. ἔστι δὲ τοῦτο</i>	<i>τῳ ὀκτῷ ψάλλεσθαι. ἔστι δὲ τοῦτο</i>
	<i>ἀπ[οβλητέον καὶ] ψευδές· ὁ γὰρ</i>	<i>ἀπ[ 8 ] ψευδές· ὁ γὰρ</i>
	<i>πλάγιος δευτέρου ὡς ἐπὶ τὸ πλεῖ-</i>	<i>πλάγιος δευτέρου· ὡς ἐπὶ τὸ πλεῖ-</i>
5	<i>στο[ν μέσος] δεύτερος ψάλλεται,</i>	<i>στο[ 5 ] δεύτερος ψάλλεται·</i>
	<i>ὡς τὸ "Νίκην ἔχων Χριστέ" [καὶ</i>	<i>ὡς τὸ, νίκην ἔχων χε· [ 7</i>
	<i>ὡς τὸ "Σ]ὲ τὸν ἐπὶ ὑδάτων" καὶ ἀλ-</i>	<i>]ε τὸν ἐπὶ ὑδάτων· καὶ ἀλ-</i>
	<i>λα ὅσα πα[ρὰ τοῦ κυροῦ Κοσμᾶ]</i>	<i>λα ὅσα πα[ 15 ]</i>
	<i>καὶ τοῦ κυροῦ Ἰωάννου τοῦ Δα-</i>	<i>καὶ τοῦ κυροῦ Ἰωάννου τοῦ δα-</i>
10	<i>μασκ[ηνοῦ ἀπὸ τῆς μουσικῆς] ἐξ-</i>	<i>μασκ[ 18 ] ἐξ-</i>
	<i>[ε]τέθησαν - ὅσα δὲ [ἐποιήθησαν</i>	<i>[1]τέθησαν· ὅσα δὲ [ 16</i>
	<i>ὑπὸ τοῦ κυροῦοῦ ['.Ι]ωσήφ [καὶ]</i>	<i>]οῦ [1]ωσήφ [ 4 ]</i>
	<i>ἀλλ[ων] τ[ινῶν, ε]ἰ δο[κιμάσεις</i>	<i>ἀλλ[1-2] τ [ 4 ]ι δο[</i>
	<i>αὐτὰ μετὰ τῆς μουσικῆς ψάλλειν,</i>	
15	<i>ούκ ἴσάζουσι διὰ τὸ μὴ ἐκτεθῆναι</i>	110-130
	<i>ὑπ' αὐτῆς - διοίωσ δὲ καὶ δ πλά-</i>	
	<i>γιος τετάρτου ὡς ἐπὶ τὸ πλεῖστον</i>	
	<i>μέσος τέταρτος ψάλλεται, ὡς] ἐπὶ 1v</i>	
	<i>τὸ "Σταυρὸν χαράξας Μωσῆς" καὶ</i>	<i>]   ἐπὶ</i>
20	<i>ἔτερα οὐκ ὀλίγα. ἔστιν οὖν ἐκ</i>	<i>τὸ στρὸν, χαράξας μωσῆς· καὶ</i>
	<i>τούτων γνῶναι, ὅτι οὐκ ὀκτὼ μό-</i>	<i>ἔτερα οὐκ ὀλίγα. ἔστιν οὖν ἐκ</i>
	<i>νοι ψάλλονται ἀλλὰ δέκα.</i>	<i>τούτων γνῶναι· ὅτι οὐκ ὀκτὼ μό-</i>
		<i>νοι ψάλλονται· ἀλλὰ δέκα·</i>

Cf S 99r-99v

1-13 non exscripsit Perne 1 λέγουσιν (vel aliud verbum dicendi) supple-  
dum esse censeo 1-2 ήχους δέ [δεικτας μόνους] ὅκτω φάλλεσθαι Vincent,  
"Ηχους δέ ἐν τούτῳ ὅκτω φάλλεσθαι Sypsomo, ήχους δ[εδεικτας μόνους κα?]τα  
τα (?) ὅκτω φάλλισθαι Gastoué 2 ἔστι] ἔτι Thibaut 3 ὑπ[όβλητον καὶ]  
φευδές Thibaut, ἀτ(άποδεδειγμένον?) φευδές Sypsomo, [σοι δ'] ἀπ[οδείξω] φευ-  
δές Thibaut 3 γὰρ - 13 non exscripsit Høeg 10-18 e codice S restitui,  
cf Thibaut (p 57, e cod Metoch 811) 14-18 deperditi, inferiore folii  
primi parte amissa

## TRANSLATION:

2. For the songs in this book eight Echoi are said to be necessary. But this is not true and should be rejected. In fact, the Plagios of Deuterios is mostly sung as Mesos Deuterios - e.g. the Νίκην ἔχων Χριστέ, the Σὲ τὸν ἐπὶν ὑδάτων, and other pieces written by Master Cosmas and Master John of Damascus "from the Mousike". (If, however, you try to sing the products of Master Joseph and others "with the Mousike", they will not fit, having not been composed "according to the Mousike"). Similarly, the Plagios of Tetartos is mostly sung as Mesos Tetartos - e.g. when you sing Σταυρὸν χαράξας Μωσῆς and many others. From these cases we can see that ten Echoi are used (for the repertory of this book?) and not eight, only.

## Notes:

- \* 1. My reconstruction of 10-18 differs in some details from the one suggested by Thibaut.
- \* 2. The distinction in 8-16 between Hagiopolitan and Studite tradition is to be observed.
- \* 3. I do not understand the implications of 10 ἀπὸ τῆς μουσικῆς, 14 μετὰ τῆς μουσικῆς, and 16 ὑπ' αὐτῆς.

3. Δεῖ δὲ ἐν τῷ μέλλειν ἡμᾶς  
ψάλλειν ἢ διδάσκειν ἀρχεσθαι με-  
τὰ ἐνηχήματος. ἐνήχημα δέ ἐστιν  
ἡ τοῦ ήχου ἐπιβολή, οἷόν τι λέ-  
γω "ἄνα, ναὶ ἄνες"· ὅπερ ἐστὶν  
"ἄναξ, ἄνες"· πᾶν γὰρ τὸ ἀρχόμε-  
νον ἀπὸ θεοῦ ὀφείλει ἔχειν τὴν  
ἀρχὴν καὶ εἰς τὸν θεόν καταλή-  
γειν.

P: δεῖ δὲ ἐν τῷ μέλλειν ἡμᾶς  
ψάλλειν ἢ διδάσκειν, ἀρχεσθαι με-  
τὰ ἐνηχήματος· ἐνήχημα δέ ἐστιν,  
ἡ τοῦ ήχου ἐπιβολή· οἷόν τι λέ-  
γω· ἄνα, ναὶ ἄνες· ὅπερ ἐστὶν,  
ἄναξ, ἄνες· πᾶν γὰρ τὸ ἀρχόμε-  
νον, ἀπὸ θεοῦ ὀφείλει ἔχειν τὴν  
ἀρχὴν καὶ εἰς τὸν θεόν θνήτος καταλή-  
γειν:-

Cf S 99v

4 ἐπιβουλῆς ante correcturam P (v erasit corrector) 6 post ἄναξ olim  
ναὶ suppleui, sed est superfluum

## TRANSLATION:

3. When we are going to sing - or to teach - we must begin with an Enechema. This term denotes the introduction of the Echos - *ananeanes*, for instance, which means "O Lord, forgive". The reason (of this invocation) is that whatever begins ought to begin "from God" and to end, as well, "in God".

## NOTES:

- \* 1. 'Επιβολή (4) is also used by S in the corresponding passage. Elsewhere, the tradition wavers between ἐπιβολή and ὑποβολή (§§6, 7, 33, 45).
- \* 2. In line 5, the orthography of P has been retained, against the normal spelling ἀνανεανές. The pious pun would come out more clearly if the echematic word had been rendered as ἀναξ, ναὶ ἀνες ("O Lord, forsooth, forgive") - but many parallels read without ναὶ.

II 4. [Ιστ]έον δέ, ὅτι ὁ πρῶτος  
καὶ δεύτερος καὶ τρίτος οὐκ εἰ-  
σ]ὶν δύναματα τῶν ἥχων κύρια· ἀλ-  
λὰ διὰ τὸ κα[τὰ τ]άξιν καὶ οἶνον  
5 ἐν βαθμοῖς κεῖσθαι τούτους, [δ  
μὲν π]ρῶτος λέγεται πρῶτος ὡς  
πρῶτος κείμε[νος,] δέ δὲ δεύτερος  
<δεύτερος> ὡς μετὰ τὸν πρῶτον,  
καὶ [οἱ ἀλλοι δ]μοίως· ὡς ἔαν εἴ-  
10 ποιει "ὁ υἱὸς τοῦ δ[εῖνα] ὁ [πρῶ-  
τος] ἦ δεύτερος", οὐ τὸ [κύ]-  
ριον ὄνομα [ ] δη  
[λῶ? ] ἀλλὰ τὴ[ν τ]άξιν τῆς  
αύτοῦ [γενέσεως.]

P: [ 3 ]έον δὲ ὅτι ὁ πρῶτος  
καὶ δεύτερος· καὶ τρίτος οὐ[ 4  
]ὶν δύναματα τῶν ἥχῶν κύρια, ἀλ-  
λὰ διὰ τὸ κα[ 4 ]άξιν· καὶ οἶνον  
ἐν βαθμοῖς κεῖσθαι τούτους· [  
5 ]ρῶτος, λέγεται πρῶτος, ὡς  
πρῶτος κείμε[ 5 ] ὁ δὲ δεύτερος,  
ὡς μετὰ τὸν πρῶτον,  
καὶ [ 7 ]μοίως, ὡς ἔαν εἴ-  
ποιει δὲ υἱὸς τοῦ δ[ 4 ] ὁ [  
4 ] ἦ δεύτερος, οὐ τὸ [ 2 ]  
οιον ὄνομα [ 13 ] δη  
[ 6 ] ἀλλὰ τὴ[ 3 ]άξι[ 2 ] τῆς  
αύτοῦ [ 8 ]

Cf S 33v et 99v

1-4 lacunas suppleuit Thibaut 5 βάθμους P, correxit Thibaut 5-6 ὁ  
μὲν] ὁ tantum suppleuit Thibaut, spatium tamen ὁ μὲν supplendum esse de-  
monstrat 7 κείμενος restituit Thibaut 8 δεύτερος addidi 9-11 la-  
cunas suppleui; aliter atque Thibaut qui 9 οἱ λοιποὶ et 10-11 τοῦ δὲ πρώ-  
του υἱὸς ἦ maluit 10 post τοῦ vocem δευτερου videri posse credidit Per-  
ne 11-14 οὐ τὸ κύριον ὄνομα [τοῦ ἥχου] δη[λοῦ] ἀλλὰ τὴν [τά]ξιν τῆς  
ἀυτοῦ[ποιείτητος] Thibaut, contra sensum et magnitudinem spatiorum  
11 κύριον - 14 non exscripsit Perne

## TRANSLATION:

4. NB. "First", "Second", and "Third" are not proper names for the Echoi. But since the Echoi are placed in order, stepwise as it were, the first Echo is called "the First" because it is placed first. The second Echo is called "Second" because it follows upon "the First", and so on. Just as when I say "the first or second son of so-and-so", this is not his real name.....but indicates his order of birth.

## NOTES:

- \* 1. For the end of this paragraph (9-14) the parallel in S runs as follows: τὸ γὰρ εἰπεῖν πρῶτος, δεύτερος, βαθὺοὶ εἰσὶ, καὶ οὐχὶ κύρια ὄνόματα. οἶδόν τι λέγω, τὸς οὗτος; ὁ υἱὸς τοῦ δεῦτος ὁ πρῶτος. ἅρα ἀνώνυμος ἔστιν πάντως; ἦ δημήτριος λέγεται, ἦ θεόδωρος. μόνον δὲ ἀπαρέθμησις ἔστιν, πρῶτος, δεύτερος, τρίτος. ἀλλ' ὁ καθεὶς ἔκαστος ἔδιον κέκτηται ὄνομα ἐκ τῶν εὑρόντων τοὺς οὓς μουσικῶν.
- \* 2. The δη at the end of line 12 is followed by an oblique stroke (δῃ). This stroke, which may be a *gravis* or the top of the letters α or λ, makes it possible to use Thibaut's δη[λοῖ] - but not the δη[μήτριος] suggested by the passage from S quoted in the preceding note. Furthermore, there seems to be a *spiritus lenis* before δη (δῃ).
- \* 3. Thibaut's ποιότητος (end of 14) rests on a misunderstanding of §30,1-6. My own γενέσεως is only a suggestion; other synonyms might be envisaged, e.g. υἱότητος.

5. [Τὰ δὲ κύρια ὄνόματα τῶν ὄκ-  
των οὓχων εἰσὶ ταῦτα] ὑποδώριος ὁ  
πρῶτος, ὑποφρύγιος ὁ δεύτερος,  
ὑπολύδιος ὁ τρίτος, δώριος ὁ τέ-

105-120

5 ταρτος, φρύγιος ὁ πλάγιος πρῶ- 2r γιος πρῶ-  
τος, λύδιος ὁ πλάγιος τοῦ δευτέ- τος λύδιος ὁ πλάγιος τοῦ δευτέ-  
ρου, μιξολύδιος ὁ βαρύς, ὑπομιξο- τος λύδιος, ὁ πλάγιος τέταρτος'  
λύδιος ὁ πλάγιος τέταρτος.

Cf S 100r

1-5 propter amissionem inferioris folii partis deperditos restituit Thibaut ex ingenio; eadem fere habet S 1-3 Ταῦτά εἰσι τὰ κύρια ὄνόματα τῶν οὓχων voluit Thibaut, sed magis placet quod scripsi

## TRANSLATION:

5. The proper names of the eight Echoi are the following: The first Echo is called Hypodorios, the second Hypophrygios, the third Hypolydios, the fourth Dorios, the first plagal is called Phrygios, the plagal of the second Lydios, Barys is called Mixolydios, and Plagios Tetartos is called Hypomixolydios.

6. Οἱ μὲν οὖν τέσσαρεις πρῶτοι οὐκ ἔξι ἄλλων τινῶν ἀλλ' ἔξι αὐτῶν γίνονται. οἱ δὲ τέσσαρεις δευτέροι, ἥγουν οἱ πλάγιοι, ὁ μὲν πλά-  
5 γιος πρῶτος ἐκ τῆς ὑπορροῆς τοῦ πρώτου γέγονε. καὶ ἀπὸ τῆς ὑπορροῆς τοῦ πληρώματος τοῦ δευτέρου γέγονεν δὲ πλάγιος δευτέρου· ὡς ἐπὶ τὸ πλεῖστον δὲ καὶ τὰ πλη-  
10 ρώματα τοῦ δευτέρου <εἰς τὸν πλά- γιον δευτέρου> τελειοῦ. ὁ βαρύς δομοῖς καὶ ἀπὸ τοῦ τρίτου· καὶ γάρ εἰς τὸ ἀσμα ἡ ὑποβολὴ τοῦ βαρέως τρίτος ψάλλεται ἀμα τοῦ  
15 τέλους αὐτοῦ. καὶ ἀπὸ τοῦ τετάρτου γέγονεν δὲ πλάγιος τέταρτος. καὶ ἀπὸ τῶν τεσσάρων πλαγίων ἐ- γεννήθησαν τέσσαρεις μέσοι· καὶ ἀπ' αὐτῶν αἱ τέσσαρες φθοραί. καὶ  
20 ἀνεβιβάσθησαν ἥχοι ις', οἵτινες ψάλλονται εἰς τὸ ἀσμα, οἱ δὲ δέ- κα ὡς προείπομεν εἰς τὸν Ἀγιο- πολίτην.

2fin-12: Eadem fere habet s fol 100r-v. Cf etiam infra, §§47-48.

4-6 ὁ μὲν - γέγονε] καὶ γάρ ἀπὸ τῆς ὑπορροῆς τοῦ α<sup>οὐ</sup> γέγονεν δὲ πλάγιος α<sup>ος</sup> s 8 ὁ πλάγιος β<sup>ος</sup> s 9 δὲ om s 10-11 εἰς τὸν πλάγιον δευτέρου conieci (cf §48, 15) 11 post βαρύς (non post τελειοῦ) distinguunt PS  
16 ὁ πλαγίου δ<sup>οὐ</sup> s 17-18 καὶ ἀπ' αὐτῶν τῶν τεσσάρων πλαγίων ἐγεννήθησαν οὐ δ<sup>οῦ</sup> (sic) μέσοι s ἐγεννήθησαν melius cum S scribendum 19 αὐτῶν] αὐτῶν τῶν μέσων ἐγεννήθησαν S 20 ἀνεβιβάσθησαν cum S legendum, ἀνε- βιθησαν Høeg, ἀνεβιέσθησαν Thibaut (quod dubitauit Høeg) 20-23 οἵ- τινες - 'Αγιοπολίτην] τούτων δὲ τῶν ις' ἀναβιβαζομένων ψάλλονται εἰς τὸ ἄσμα οἱ αὐτοὶ ις'. εἰς δὲ τὸν ἀγιοπολίτην ι' καὶ μόνον καθὼς προείπομεν S

#### TRANSLATION:

6. The four Echoi which come first are generated from themselves, not from others. As to the four which come next, i.e. the Plagal ones, Plagios Protos is derived from Protos, and Plagios Deuterous from Deuterous - normally Deuterous melodies end in Plagios Deuterous. Similarly, Barys from Tritos - "for

P: οἱ μὲν οὖν τέσσαρεις πρῶτοι οὐκ ἔξαλλων τινῶν, ἀλλ' ἔξι αὐτῶν γίνονται· οἱ δὲ τέσσαρεις δευτέροι, ἥγουν οἱ πλάγιοι· ὁ μὲν πλάγιος πρῶτος, ἐκ τῆς ὑπορροῆς τοῦ πρώτου γέγονε· καὶ ἀπὸ τῆς ὑπορροῆς τοῦ πληρώματος τοῦ δευτέρου, γέγονεν, δὲ πλάγιος δευτέρου· ὡς ἐπὶ τὸ πλεῖστον δὲ καὶ τὰ πληρώματα τοῦ δευτέρου, τελειεῖ ὁ βαρύς· ὁμοίως καὶ ἀπὸ τοῦ τρίτου· καὶ γάρ εἰς τὸ ἀσμα. ἡ ὑποβολὴ τοῦ βαρέως, τρίτος ψάλλεται, ἀμα τοῦ τέλους αὐτοῦ· καὶ ἀπὸ τοῦ τετάρτου γέγονεν, δὲ πλάγιος τέταρτος· καὶ ἀπὸ τῶν τεσσάρων πλαγίων ἐγεννήθησαν τέσσαρεις μέσοι· καὶ ἀπ' αὐτῶν αἱ τέσσαρες φθοραί· καὶ ἀνεβιβάσθησαν ἥχοι ις' οἵτινες ψάλλονται εἰς τὸ ἀσμα. οἱ δὲ δέκα ὡς προείπομεν εἰς τὸν ἀγιοπολίτην.

in the Asma the Hypobole of Barys is sung as Tritos together with its ending" (?). And from Tetartos came Plagios Tetartos. From the four Plagios originate the four Mesoi, and from these the four Phthorai. This makes up the sixteen Echoi which are sung in the Asma - as already mentioned, there are sung only ten in the Hagiopolites.

NOTES:

- \* 1. For the way in which the Echoi are generated from others, the text uses different expressions, all of which are elaborations of the simple γίνονται ἐξ in lines 2-3: ὁ Α ἐκ τῆς ὑποροφῆς τοῦ Β γέγονε (4-6) / ἀπὸ τῆς ὑποροφῆς τοῦ πληρώματος τοῦ Β γέγονεν ὁ Α (6-8) / τὰ πληρώματα τοῦ Β εἰς τὸν Α τελειοῦ (9-11) / ἡ ὑποβολὴ τοῦ Α Β ψάλλεται ἅμα τοῦ τέλους αὐτοῦ (13-15) / ἀπὸ τοῦ Β γέγονεν ὁ Α (15-16) / ἀπὸ τῶν Β ἐγεννήθησαν Α (17-18). This is evidently to be taken as a *variatio sermonis*; but what, exactly, is meant by ὑποροφή, πλήρωμα, τέλος (and τελειόω)? Ψάλλεται in line 14 points towards actual singing rather than towards pure theory.
- \* 2. The misleading punctuation of P in line 11 (after ὁ βαρύς instead of before) is shared by S. Was it already in their common ancestor?
- \* 3. In lines 17-18, the reading of P (ἐγεννήθησαν) is probably the *lectio facilior*, inspired by the preceding forms of γίνονται.
- \* 4. The verb ἀνεβιβάσθησαν (20) implies that the four groups of Echoi are added together. For οἱ δέκα, the verb ψάλλονται is to be supplied from the relative clause.

7. Καὶ γὰρ μέσος πρῶτος εἰς τὴν P: καὶ γὰρ μέσος πρῶτος εἰς τὴν ἀρχὴν τῆς ὑποβολῆς καὶ τέλος ἀρχὴν τῆς ἐπέβολῆς καὶ τέλος τοῦ πλαγίου πρώτου καὶ [ἄρ]χεται καὶ τελειοῦται' ἡμεπλαγιοτεταρ- καὶ τελειοῦται' ἡμεπλαγιοτεταρ-  
 5 τίζει δὲ μόνον, καὶ τοῦτο ἔχει τίζει [δὲ] μόνον] καὶ τοῦτο ἔχει ἐπέκεινα τοῦ λα'. ὅμοίως καὶ ἀ- 2v ἐπέκεινα τοῦ λα ὁμοίως] καὶ ἀ- πὸ τοῦ λβ' ὁ μέσος δεύτερος. πὸ τοῦ λβ' ὁ μέσος δεύτερος.  
 ψάλλεται δὲ καὶ ἀπὸ τοῦ βαρέως ψάλλεται δὲ καὶ ἀπὸ τοῦ βαρέως πάλιν ὁ μέσος τρίτος, καὶ ἀπὸ πάλιν, ὁ μέσος τρίτος καὶ ἀπὸ 10 τοῦ λδ' ὁ μέσος τέταρτος. τοῦ λδ' ὁ μέσος τέταρτος.

Eadem fere habet S (100v). Cf etiam infra, §33,11-25

2 ἐπέβολῆς P, ὑποβολῆς S τέλος] τὸ τέλος S, fortasse recte 3 sqq in litteris supplendis S usus sum 3 τοῦ om S 5 δὲ μόνον] 'Ομοίως coniecit Thibaut qui post ἡμεπλαγιοτεταρίζει interpusxit 9 πάλιν om S

TRANSLATION:

7. For Mesos Protos begins and ends "at the beginning and end of the Hypobole of Plagios Protos" (?); it somehow reminds of Plagios Tetartos, the only feature which makes it different from Plagios Protos. And in a similar way, Mesos Deuteros is related to Plagios Deuteros. Again, Mesos Tritos is sung from Barys, and Mesos Tetartos from Tetartos.

## NOTES:

- \* 1. The καὶ γάρ in line 1 seems to imply that §7 explains the reduction from sixteen to ten Echoi referred to in §6. But how is that to be understood?
- \* 2. Although the wording of this damaged paragraph can be restored with considerable safety, thanks to the version of S and the parallel in §33, several details remain unclear. 'Υποβολή in S and ὑπερβολή in §33 suggest that P's ἐπιβολή is wrong; but the meaning of ὑποβολή is as unclear here as it was in §6. Cf. also §45 note 2.

8. Ἡσαν μὲν οὖν < μέλη > καὶ πρὸ τοῦ γενέσθαι τούς ἥχους, πλὴν ἄηχα καὶ ἀνάρμοστα καὶ τὴν φύσιν πρὸς οραυγὴν καὶ βίαν ἐκ-  
5 βιάζοντα· ἡ καὶ παρὰ τῶν θείων κανόνων ἐκαλύθησαν.

Cf S 100v

1 μέλη suppleui duce S 4-5 ἐκβιάζοντα S, ἐβιάζοντα P, ἐβιάζοντο Thibaut et Høeg 6 ἐκαλύθησαν scripsi, ἐκολύθησαν S, ἐκαλήθησαν P Thibaut Høeg

## TRANSLATION:

8. Melodies, then, existed also before the Echoi came into being. But they were without Echoes and harmony, and forced nature towards screaming and violence; this, too, was forbidden by the Sacred Decrees.

## NOTES:

- \* 1. Cf. Canon 75 of the 6th Ecumenical Council: Τοὺς ἐπὶ τῷ φάλλειν ἐν ταῖς ἐκκλησίαις παραγινομένους βουλόμεθα μήτε βοαῖς ἀτάκτοις κεχρῆσθαι καὶ τὴν φύσιν πρὸς οραυγὴν ἐκβιάζεσθαι, μήτε τι ἐπιλέγειν τῶν μὴ ἐκκλησίᾳ ἀρμόδιων τε καὶ οἰκείων.
- \* 2. ἄηχα καὶ ἀνάρμοστα, for which the latter reflects the τὸ μὴ ἀρμόδια of note 1, imply that these melodies sounded unpleasantly and were not fit for being used in church.

9. Οὐκ ἔστιν οὖν εὐρεῖν οὕτε < ἥχον ?> μέλους ἐκτός, οὕτε μέλη μὴ μετὰ ἡχήματος. ἔστι δὲ μέσον τοῦ μέλους καὶ τοῦ ἥχου  
5 τὸ μελισθέν τροπάριον· οὐκ ἄλλως δὲ μελίζεται, εἰ μὴ διὰ τόνων.

2 ἥχον vel ἥχους supplendum 3 μέλη scripsi, μέλει P, μέλους ἐντός εἰ coniecit Høeg

P: Ἡσαν μὲν οὖν καὶ πρὸ τοῦ γενέσθαι τούς ἥχους· πλὴν, ἄηχα καὶ ἀνάρμοστα· καὶ τὴν φύσιν προσκραυγὴν καὶ βίαν ἐβιάζοντα· ἡ καὶ παρὰ τῶν θείων κανόνων ἐκαλήθησαν.

P: οὐκ ἔστιν οὖν εύρειν, οὕτε μέλους ἐκτός, οὕτε μέλει μὴ μετὰ ἡχήματος· ἔστι δὲ μέσον τοῦ μέλους καὶ τοῦ ἥχου, τὸ μελισθέν τροπάριον· οὐκ ἄλλως δὲ μελίζεται, εἰ μὴ διὰ τόνων.

## TRANSLATION:

9. Well, then, neither can an Echos be found without a melody, nor melodies without an Echema. As to the sung Troparion, this is to be placed in between the melody and the Echos; singing, however, always implies Tonoi.

10. Τόνος δέ ἔστιν πρὸς ὃν ἄδο-  
μεν, καὶ τὴν φωνὴν εὔρυτέραν  
ποιοῦμεν\* ὁ δὲ τόνος εὔρεθη ἐκ  
τῶν τῆς μουσικῆς χορδῶν. ἀριθμὸς  
5 δὲ τόνων ὅσος καὶ μουσικῆς, ἀνευ  
τῶν τριῶν ἡμιτόνων καὶ τῶν τεσ-  
σάρων λεγομένων πνευμάτων στοι-  
χείων καὶ τῆς ἀπορροίας τοῦ κεν-  
τήματος καὶ τοῦ ὑψιλοῦ ήτοι τῆς  
10 φθορᾶς.

3 οἱ δὲ τόνοι εὔρεθη[σαν] Thibaut

## TRANSLATION:

10. Tonos is that from which we sing and make our voice "broader". It was found from the chords of the Mousike. The number of Tonoi is as great as that of (the Tonoi in ancient) music - without the three Hemitonoi and the four signs (στοιχεῖα) called Pneumata and "the derivate of Kentema and Hypsilon, i.e. the Phthora".

## NOTES:

- \* 1. "The number of τόνοι is as great as that of music". The text may be corrupt. If not, it is at least most imprecisely expressed. Rather close parallels to our text are found in Tardo, Melurgia, p. 167 (Πόσοι τόνοι εἰς τὸν Ἀγιοπολίτην; ὅσα καβάλλα ἔχει ἡ τελεῖα μουσική, from Vat.gr.872, Ηρόεγκ's punctuation) and p. 212 (Τόνοι μὲν εἰσὶ πεντεκαΐδεκα· εἰ δὲ καὶ ἀπειθῆς, ἐρώτησον πόσα καβάλλα ἔχει ἡ τελεῖα μουσική καὶ εὔρησεις τὰ πάντα τε', δῆλον ὅτι καὶ τόνοι εἰσὶ κατὰ ἀναλογίαν τούτων, from Lavra 1656). The expression ἡ τελεῖα μουσική reminds of the Ancient τέλειον σύντημα (the double octave consisting of 15 notes); the number 15 happens to be the number of chords of the πεντεκαΐδεκάχορδον ὄργανον; below (§101) it is said that Pythagoras called his four-stringed Organon μουσική. The analogy adduced in §10 evidently has some connection with such reminiscences of Ancient musical theory, though it is quite probable that the author (or his sources) had no clear picture of what he was talking about. Τόνοι is here to be taken for "musical signs" rather than musical sounds - and the καβάλλα of the "Hagiopolitan" tradition suggests that the Ancient phenomena to which the Tonoi were compared were also understood (or misunderstood?) as musical signs, though chances are that they in an older version must have been strings or chords. At present, however, it is advisable to keep the text as it is, rather than to emend it, e.g. into ἀριθμὸς δὲ τόνων ὅσος καὶ <τῶν καβαλλῶν (or τῶν χορδῶν?) τῆς τελείας> μουσικῆς.
- \* 2. For the Phthora (9-10), see below §16.

11. Τὰ δὲ ὄνόματα τῶν δεκαπέντε τῆς μουσικῆς καβαλλίων εἰσὶν ταῦτα· προσλαμβανόμενος· ζῆτα ἐλλιπές 5 καὶ ταῦ πλάγιον.

ὑπάτη ὑπατῶν· γάμμα ἀπεστραμμένον καὶ γάμμα ὄρθον. παρυπάτη ὑπατῶν· βῆτα ἐλλιπές καὶ γάμμα ὅπτιον.

10 ὑπατῶν διάτονος· φῖ καὶ δίγαμμα. ὑπάτη μέσων· σίγμα καὶ σίγμα. παρυπάτη μέσων· ῥῖ καὶ ὑ. μέσων διάτονος· ἥ καὶ πί καθειλα-  
κυσμένον.

15 μέση· ἵστα καὶ ἔλλιπτα καὶ ἔλλιπτα πλάγιον. τρίτη συνημμένων· ἕτη καὶ ἔλλιπτα ἀνεστραμμένον.

συνημμένων διάτονος· ἕτη καὶ ὑ. <νήτη> συνημμένων· ὅτι τετράγωνον 20 ὅπτιον καὶ ἔτι.

παραμέση· ἔτι καὶ πί πλάγιον. τρίτη διεζευγμένων· ἔτι τετράγωνον καὶ πί ἀνεστραμμένον.

διεζευγμένων διάτονος· ὅτι τετρά- 25 γωνον ὅπτιον καὶ ἔτι.

νήτη διεζευγμένων· ὅτι καὶ πλά-  
γιον ὑ.

τρίτη ὑπερβολαίων· ὑ κάτω νεύων καὶ ἡμίαλφα ἀριστερὸν ἀνεστραμ-  
μένον.

30 ὑπερβολαίων διάτονος· ἥ καὶ πί καθειλακυσμένον ἐπὶ τὴν ὁξύτητα. νήτη ὑπερβολαίων· ἔτη καὶ ἔλλιπτα καὶ γάμμα ἀριστερὰ S, γράμμα AnonC 4 προσλαμβανόμενος S 5 ταῦ Anon, τὸν P, τὸ S 6 γάμμα] γάμμα (sed ante correcturam γράμμα) ἀριστερὰ S, γράμμα AnonC 6-7 ἀντεστραμμένον P 7 γράμμα ante correcturam S 10 δύγαμον S 11 μέση P, μέσον S 12 παρ-

P: τὰ δὲ ὄνόματα τῶν δεκαπέντε τῆς μουσικῆς καβαλλίων, εἰσὶν ταῦτα· προσλαμβανόμενος, ζῆτα ἐλλιπές καὶ τὸν πλάγιον·

[ὑ]πάτη ὑπατῶν γάμμα ἀντεστραμμέ-  
νον· καὶ γάμμα ὄρθον· παρυπάτη ὑπάτων· βῆτα ἐλλιπές καὶ γάμμα ὅπτιον·

ὑπατῶν διάτονος· φῖ καὶ δίγαμμα· ὑπάτη μέση, σίγμα καὶ σίγμα· παρυπάτη μέσον· ῥῖ καὶ ὑ μέσων διάτονος ἥ καὶ πί· καθειλα-  
κυσμένον·

μέση ἵστα· καὶ ἔλλιπτα πλάγιον· τρίτη συνημμένων, ἕτη καὶ ἔλλιπτα ἀν-  
εστραμμένον·

συνημμένων διάτονος· ἕτη καὶ ὑ· συνημμένων· ὅτι τετράγωνον ὕπτιον καὶ ἔτι·

παραμέση· ἔτι καὶ πί πλάγιον· τρίτη διεζευγμένων· καὶ τετράγω-  
νον καὶ πί ἀνεστραμμένον·

διεζευγμένων διάτονος· ὅτι τετρά-  
γωνον ὕπτιον καὶ ἔτι·

νήτη διεζευγμένων φῖ καὶ πλά-  
γιον πί·

τρίτη ὑπερβολαίων· ὑ κάτω νεύων καὶ ἡμίαλφα ἀριστερὸν ἀνεστραμ-  
μένον·

ὑπερβολαίων διάτονος ἥ καὶ πί· καθειλακυσμένον ἐπὶ τὴν ὁξύτητα· νήτη ὑπερβολαίων, ἔτη καὶ ἔλλιπτα καὶ γράμμα ἀριστερὰ S, γράμμα AnonC 11 μέση P, μέσον S 12 παρ-

4-34 (= Anon §67) habet S 95r, cum notis musicis; 4-5 cf. infra, §87

4 προσλαμβανόμενος S 5 ταῦ Anon, τὸν P, τὸ S 6 γάμμα] γάμμα (sed ante correcturam γράμμα) ἀριστερὰ S, γράμμα AnonC 6-7 ἀντεστραμμένον P 7 γράμμα ante correcturam S 10 δύγαμον S 11 μέση P, μέσον S 12 παρ-

υπάτην S μέσον P (et S ante correcturam?) ὁ καὶ ὑ] ὁ ὄρθὸν καὶ σύγ-  
μα ἀνεστραμμένον S, ὁ καὶ ὅ ἀνεστραμμένον Anon 13 μέσον S μῆ καὶ πᾶς  
Anon, μῆ ὄρθὸν καὶ σύγμα S (qui tamen Π id est πᾶς καθειλκυσμένον scribit)  
15 ὥντα ἡ πλάγιον, κάππα S (ΙΚ praebens) 16 συνημμένον S 16-17 θῆ-  
τα ὄρθὸν καὶ λάμβδα διεστραμμένον S (θΛ) 18 συνημμένον S γάμμα καὶ  
νῦ S 19 νήτη suppleuit Thibaut (habent S et Anon) συνημμένον S  
19-20 ὅ μέγα τετράγωνον ὑπτιον καὶ ζῆτα ἐλλιπές S (ΩΩ) 21 παράμεση P,  
παράμεσος Anon, περίμεσος S ζῆτα ὄρθὸν καὶ πᾶς πλάγιον S 22 διεζευγ-  
μένον S ἔ] καὶ P 22-23 τετράγονον S 23 πᾶς S 24 διάτονος διε-  
ζευγμένον S 24-25 τετράγονον S 25 ξ] ζῆτα ἐλλιπές S 26 διεζευγμέ-  
νον S 26-27 φᾶς καὶ πλάγιον η P, φᾶς πλάγιον καὶ η ἀμελητικόν Anon, φᾶς πλά-  
γιον καὶ ητα ἀμελητό S 28 νεύων P 29 ἡμίαλφα] ἡμίσυ φᾶς S (η)  
29-30 ἀντεστραμμένον S 31 μῆ καὶ πᾶς S 33 ὥντα καὶ λάμβδα S

## TRANSLATION:

11. The names of the fifteen signs of the Mousike are the following: *Follows the 18(!) tones of the Lydian diatonic scale (Alypius 1), with description of the shape of each pair of signs, but without the signs themselves. See notes.*

## NOTES:

- \* 1. There is no doubt that the Lydian diatonic scale (= Anon §67 = Alypius scale 1) was transferred to its present position in §11 from an original place between Anon §§ 66 and 68 (= Hagiopolites §§86-88). To Najock (ed. 1972 p.216) the τὸν πλάγιον of P in line 5 is so different from P's reading in §87 (ταῦτα πλάγιον) that §11 cannot (at least "wohl nicht") have been copied from the same source (an Anon-MS) as the line in §87. For this reason Najock's 1975-edition does not mention P's readings in §11. However, it seems to be much more likely that one badly written word in one MS (the common ancestor of P and S) produced τῶ in S and τὸν or ταῦτα in P (the latter, maybe due to the intrusion of a clarifying interlinear ταῦ?) - than to make both scribes commit independent mistakes when copying this particular ταῦ πλάγιον from their model MSS. From the wording in §87 it is evident that the transfer was a deliberate one. It is not easy, however, to decide whether the transmission took place in P itself or in one of its ancestors.
- \* 2. The first phrase announces a list of "the names of the 15 καβάλλια τῆς μουσικῆς", but the list must have been removed to give room for the 18 names (and graphical symbols?) of the notes in the Lydian diatonic scale. From §13 we can see that the list, in all likelihood, comprised 12 "simple" signs and 3 "compound" ones - the latter being the Xeron Klasma, the Mega Kratema, and the Kouphisma. See also below, ad §22.
- \* 3. The Υ in 12 may derive from a musical sign in a previous MS (Λ = σύγμα ἀνεστραμμένον). In 21, one should perhaps restore παράμεσος (cf. περίμεσος in S). In 26-27, the error of P is hard to explain; notice, however, that S in line 15 has a similar set of misunderstood elements (ἢ / πλάγιον / κάππα). The other errors of P (in 6-7, 11, 13-14, 19, 22, 28) are simple scribal mistakes, easily corrected by means of S and Anon.

\* 4. The list is written consecutively in P and S. S includes the notational symbols (see Najock 1975). The unsystematic way in which P treats the blank might indicate that his model MS had blanks, only, without the notational symbols.

III 12. Σημείωσαι ὅδε περὶ τόνων ἀ- P: Σημείωσαι ὅδε· περὶ τόνων ἀ-  
πλῶν καὶ συνθέτων καὶ ὀποία δεῖ πλῶν καὶ συνθέτων καὶ ὀποία δεῖ  
εἶναι τὰ κυρίως σημάδια κατὰ μέ- εἶναι τὰ κυρίως σημάδια, κατὰ μέ-  
μησιν τῶν τῆς μουσικῆς καβαλλίων. μησὶν τῶν τῆς μουσικῆς καβαλλίων:-

Totam paragraphum rubro colore exarauit P

TRANSLATION:

12. "Notice here concerning simple and compound tones, and how the primary signs ought to be in imitation of the Kaballia of Music."

NOTES:

- \* 1. In Thibaut's edition (p.59) this paragraph is printed as a headline to chapter II (= §§13-17). Perhaps it rather reflects a marginal note in the model MS - conceivably covering §§10-11. Another such marginal entry might be §97 which looks like a scholion, cf. also §28.
- \* 2. For κατὰ μέμησιν cf. §10 note 1, where Lavra 1656 is quoted for the expression κατὰ ἀναλογίαν.

IV 13. Τῶν δεκαπέντε τανῦν τόνων P: Τῶν δεκαπέντε τανῦν τόνων  
συναριθμούμενων καὶ τῶν τεσσάρων 3v συναριθμούμενων, καὶ τῶν τεσσάρων  
πνευμάτων λεγομένων στοιχείων πνευμάτων λεγομένων στοιχείων  
τῶν δύο φωνηέντων καὶ τῶν δύο τῶν δύο φωνηέντων καὶ τῶν δύο  
5 βαρυνομένων συμπληροῦται ὁ ἐννα- βαρυνομένων· συμπληροῦται ὁ ἐννα-  
καὶ δέκατος ἀριθμός. οὗτοι δὲ οἱ καὶ δέκατος ἀριθμός· οὗτοι δὲ οἱ  
δώδεκα τόνοι ἔχουσι τὴν φύσιν καὶ τὸ δέκατον τόνοι ἔχουσι τὴν φύσιν καὶ  
τὴν ἐνέργειαν ἀπλήν· οἱ δὲ τρεῖς τὴν ἐνέργειαν ἀπλήν· οἱ δὲ τρεῖς·  
<σύνθετοί εἰσιν,> οἶνον τὸ ξηρὸν  
10 οκτάσια ἀπὸ δύο ὁξείῶν καὶ ήμιτο- οκτάσια, ἀπὸ δύο ὁξείων, καὶ ήμιτο-  
νίου ἔχει τὴν σύστασιν, τὸ δὲ μέ- νίου ἔχει τὴν σύστασιν· τὸ δὲ μέ-  
γα κράτημα ἀπὸ δύο ὁξείῶν <καὶ πε- γα κράτημα, ἀπὸ δύο ὁξείων,  
τασθῆς>, καὶ τὸ κούφισμα ποτὲ μὲν καὶ τὸ κούφισμα ποτὲ μὲν  
ἀπὸ πετασθῆς ποτὲ δὲ ἀπὸ μεγάλου  
15 κρατήματος.

1 τανῦν dubitauit Høeg 9 et 12-13 lacunas suppleui 13 κάφισμα ante correcturam P (correxit rubricator)

## TRANSLATION:

13. Added together, the fifteen Tonoi and the four Pneumata Stoicheia so-called amount to nineteen. Of these, twelve Tonoi have a simple nature and effect, whereas three are compound - the Xeron Klasma being put together from two Oxeiai and a Hemitonion, the Mega Kratema from two Oxeiai and Petasthe, and the Kouphisma sometimes from Petaste, at other times from Mega Kratema.

## NOTES:

- \* 1. If τόνων (1) is the genuine text, it is probably a somewhat loose reference to the list which originally was found in §11 (see above, p. 19). Høeg marked the word with a question mark in his transcript of P - feeling, in all likelihood, that it was a dittography of the following word (τόνων).
- \* 2. The terminology used in lines 3-6 reappears in §17, 9-12 and §22, 4-6.
- \* 3. Οὗτοι δὲ οἱ δώδεκα τόνοι (6-7) is to be understood as if it were Τούτων δὲ οἱ μὲν δώδεκα τόνοι, cf. οἱ δὲ τρεῖς in line 8.
- \* 4. The description of the three compound signs (8-15) fits well to their shapes in Coislin notation, both in composite and incomposite form (Λ and ΛΛ, Κ and ΚΚ and ΚΛ).
- \* 5. In later terminology the two forms of the Kouphisma are denoted by two terms: ΚΛ is called πετασθοκούφισμα (or just κούφισμα), ΚΚ κρατημοκούφισμα (e.g. Tardo p.174, from Vatic. gr. 791; cf. also the list from Paris gr. 261 in Floros III, plate 2). As pointed out by Floros (I,162-65), the Kouphisma does not occur in MSS earlier than those of his types Coislin IV and Chartres III. The 'Kratemokouphisma' is found, though rarely, in both Palaeobyzantine notational systems (see e.g. Floros III, Beisp.10 and 91).

14. Εἰσὶ δὲ ἀπὸ τῶν ἀπλῶν τόνων P: εἰσὶ δὲ ἀπὸ τῶν ἀπλῶν τόνων προσλαμβανόμενοι τινες, οἷον αἱ τρεῖς ὁξεῖαι, οἱ δύο ἀπόστροφοι μετὰ ὁξείας, αἱ δύο ὁξεῖαι ἀπό-  
5 στροφος καὶ πετασθή τὸ λεγόμενον ἀνάσταμαν (διότι ἀπὸ τοῦ κρατή- ματος τῆς διπλῆς ἡ πετασθή φω- νὴν ὁξυτέραν φέρουσα ἀναφέρε- ται), καὶ ἔτερα τοῖς ἀριθμη-  
10 θεῖσιν ὅμοια.

8 φέρουσαν P

προσλαμβανόμενοι τινές\* οἷον αἱ τρεῖς ὁξεῖαι\* οἱ δύο ἀπόστροφοι μετὰ ὁξείας\* αἱ δύο ὁξεῖαι, ἀπό- στροφος καὶ πετασθή τὸ λεγόμενον ἀνάσταμαν\* διότι ἀπὸ τοῦ κρατή- ματος τῆς διπλῆς, ἡ πετασθή φω- νὴν ὁξυτέραν φέρουσαν, ἀναφέρε- ται καὶ ἔτερα τοῖς ἀριθμη- θεῖσιν ὅμοια\*

## TRANSLATION:

14. A number of combinations are made from the simple Tonoi, e.g. "the three Oxeiai", "two Apostrophoi plus Oxeia", "two Oxeiai, Apostrophos, and Petasthe" (the so-called Anastama - the reason for this name being that the Petasthe is sung at a higher pitch after the prolongation of the Diple), and other groups similar to those already listed.

## NOTES:

- \* 1. The word προσλαμβανόμενοι (scil. τόνοι?) sounds like a *terminus technicus*. From the examples it is clear that it denotes "fixed neume groups where simple signs are added together". Cf. προσλαμβάνει §15, 4-5.
- \* 2. The three groups which are mentioned as examples are well-known from both Palaeobyzantine notational systems. Their Coislin shapes are: // ("Dyo" according to the Laura-list, cf. Floros I, 200-01); >>/ (in §18, 12-14 this combination is called Apeso Exo, cf. also the Laura-list and Floros I, 214-15); // (Anastama, cf. Floros I, 201-03).
- \* 3. ἀνάσταμα (for ἀνάσταμα) has several parallels in the following - in §18 alone we find κράτημαν, ἀνατρίχισμαν, ἀνάσταμαν. The phenomenon seems to have been widely spread, and Thibaut (p.59 note 9) is probably not to be trusted when he finds that this ending "trahit une influence arabe; d'où l'on est en droit d'inférer que le codex Hagiopolite provient apparemment de la Palestine ou de l'Egypte".

15. Οἱ δὲ λοιποὶ τῶν ἀπλῶν ἐν-  
εργοῦνται καὶ μόνοι καὶ μετὰ  
πνευμάτων, δινευ τῆς ἵσης τέν  
τῆς τῶν τριῶν· τοῦτε πνεῦμα προσ-  
5 λαμβάνει οὕτε ἔτερον τόνον,  
ἀλλὰ πανταχοῦ τὴν ἐνέργειαν  
ἵσην φέρει. εἰ δὲ καὶ αὐτὴν  
βουληθῆται τις σύνθετον εἰπεῖν,  
οὐχ ἀμαρτήσει· κεντήματος γάρ  
10 μνήμη μετὰ ὀλίγου ἀποτελεῖται  
ἡ ἵση. εἰ δέ τις ἀπορεῖ τοῦτο,  
εἰ ἔστιν τάσματικὸς τῆς πρώτης  
λαμβανέτω τὴν πληροφορίαν, ὅτι  
ἐν τοῖς χειρονομήμασι τοῖς  
15 ἀσματικοῖς τὸ ὀλίγον ἵσον κέ-  
κληται.

1-2 ἐνεργοῦντων P 2 μόνον P 5 ἔτερος τόνος P 10 an μνήμην 'legendum?

## TRANSLATION:

15. But the rest of the simple tones function both alone and together with Pneumata, apart from the Ison which is neither combined with a Pneuma nor with another Tonos, but in all situations has only its function of Ison (?). If somebody wants to call this sign a compound one, this would not be wrong; for the Ison is written as Kentema + Oligon. And if he has his doubts about ..., let him know that in the asmatic lists of signs (?) the Oligon is called Ison.

P: οἱ δὲ λοιποὶ τῶν ἀπλῶν ἐν-  
εργοῦντων καὶ μόνον καὶ μετὰ  
πνευμάτων | δινευ τῆς ἵσης, ἐν  
τῆς τῶν τριῶν· οὕτε πνεῦμα προσ-  
λαμβάνει, οὕτε ἔτερος τόνος·  
ἀλλὰ πανταχοῦ τὴν ἐνέργειαν  
ἵσην φέρει· εἰ δὲ καὶ αὐτὴν  
βουληθῆται τις σύνθετον εἰπεῖν,  
οὐχ ἀμαρτήσει· κεντήματος γάρ  
μνήμη μετὰ ὀλίγου ἀποτελεῖται  
ἡ ἵση· εἰ δέ τις ἀπορεῖ τοῦτο,  
εἰ ἔστιν ἀσματικὸς, τῆς πρώτης  
λαμβανέτω τὴν πληροφορίαν· ὅτι  
ἐν τοῖς χειρονομήμασι τοῖς  
ἀσματικοῖς τὸ ὀλίγον ἵσον κέ-  
κληται.

4<sup>x</sup>

## NOTES:

- \* 1. Thibaut (p.59, note 5) suggests that ἐν τῇ τῶν τριῶν in 3-4 is an elliptical expression for ἐν τῇ τῶν τριῶν σημαδέων χειρονομήσ, a reference to the three fundamental signs of direction (Ison for Ἰσότης, Oligon for ἀνάβασις, Apostrophos for κατάβασις - to use the terminology of the Papadike). As subject for προσλαμβάνει he adds ή ἔση, before the first οὔτε in line 3. Perhaps the text should rather be restored as follows: ἀνευ τῆς ἔσης, <ηττις> ἐν τῇ τῶν τριῶν < > οὔτε πνεῦμα προσλαμβάνει οὔτε ἔτερον τόνον...
- \* 2. Lines 9-11 describe a Coislin Ison of the same type as e.g. Sinai 1242 (Strunk, Specimina, plate 160), whereas the reference in 15-16 is clearly to the straight Chartres Ison (—).
- \* 3. Provisionally I interpret τὰ χειρονομήματα τὰ ἀσματικά (14-15) as a term for "musical notation used in MSS of ἀσμα"; a related term occurs in the heading of the Laura-list (Σὺν θεῷ, ἀρχαὶ τῶν μελοδημάτων.)

16. "Εστι δὲ καὶ ἡ λεγομένη φθορά, ἡ ἀπὸ τοῦ κεντήματος καὶ τῆς ὑψηλῆς ἔχουσα τὴν ἀπόρροιαν" καὶ γὰρ οὐδ' αὐτὴ μόνη 5 ἐνεργεῖ, ἀλλὰ μετὰ ὁξείας· ἡ δὲ καὶ δύο τοῦ καὶ τριῶν ὁξειῶν τοῦ καὶ δύο ἀποστρόφων καὶ ὁξείας ἀποτελεῖ κεντήματος δύναμιν· ὅτε δὲ ἐπάνω, πληροῦ δύναμιν 10 ὑψηλῆς, εἰ καὶ μὴ διέλοι.

1 [ἔστι] ἔτι Floros 5 [ἡ] ἡ Floros

P: ἔστι δὲ καὶ ἡ λεγομένη φθορᾶ, ἡ ἀπὸ τοῦ κεντήματος καὶ τῆς υψηλῆς, ἔχουσα τὴν ἀπόρροιαν καὶ γὰρ οὐδ' αὐτῇ μόνη ἐνεργεῖ ἀλλὰ μετὰ ὁξείας· ἡ δὲ καὶ δύο τοῦ καὶ τριῶν ὁξειῶν, τοῦ καὶ δύο ἀποστρόφων καὶ ὁξείας, ἀποτελεῖ κεντήματος δύναμιν· ὅτε δὲ ἐπάνω πληροῦ δύναμιν ὑψηλῆς, εἰ καὶ μὴ διέλοι·

## TRANSLATION:

16. There is also the so-called Phthora, derived (graphically?) from the Kentema and the Hypsele. This sign, too, is not used alone, but combined with Oxeia. But in the combinations with two or three Oxeiai or with two Apostrophoi + Oxeia, it has the effect of a Kentema; but when it is placed on top (of the group), it functions as a Hypsele, though not always.

## NOTES:

- \* 1. The ἀπόρροια in 3-4 (already encountered in §10,8) perhaps refers to the graphical "derivation" of the Phthora, rather than to its function - though the idea of comparing its two elements (ο and | or /) to Kentema and Hypsele seems rather farfetched. The author may have suffered from a *System-zwang*, cf. his equally strange description of Ison in §15,9-11. His starting-point seems to have been the clear cases of σύνθετοι τόνοι (§13,8-15). Floros (I,296) uses "Ausgang" to render ἀπόρροια.
- \* 2. In 5-10 he evidently refers to groups such as //Φ //Φ and >>/Φ (cf. Floros I,297). According to Floros, the combination of Diple and Phi is not to be found in his material.

- \* 3. In later terminology, ἐπάνω is opposed to ἐμπροσθεν (see e.g. Tardo p. 171, from Vatic. gr. 872). Our author apparently distinguished between // and //φ etc.

17. Ἐπεὶ δὲ εἴπομεν περὶ τόνων, P: ἐπεὶ δὲ εἴπομεν περιτόνων,  
 φέρε εἴπωμεν καὶ περὶ πνευμάτων,  
 τίνος χάριν ἔγένοντο, ὅτι ὥσπερ  
 τὸ σῶμα πολλὰ ἔχον τὰ μέλη ἀν-  
 5 ενέργητά εἰσιν εἰς μὴ διὰ τῶν  
 στοιχείων ἐνεργοῦνται, οὕτω καὶ  
 οἱ τόνοι εἰς μέλη πολλὰ σωματο- 4<sup>V</sup>  
 ποιηθῆνται θέλουσιν, ὅτε μέλλονται  
 ενέργειν. ἐν οἷς ἐπενοή-  
 10 θησαν ταῦτα τὰ στοιχεῖα, ὃν τὰ  
 μὲν δύο φωνητικά, τὰ δὲ δύο  
 βαρυνόμενα, ἵν' ἐν τούτοις <έν-  
 εργῶσιν.> ἐνεργοῦσι μὲν καὶ  
 αὐτά πλὴν νεκρά ἔστιν ἢ τούτων  
 15 ἐνέργεια.

12-13 ἐνεργῶσιν suppleuit Ebbesen

TRANSLATION:

17. Having now spoken about the Tonoi, let us also tell for what purpose the Pneumata have been introduced: Our body has many limbs (μέλη), but if these are not activated by means of the elements (στοιχεῖα), they remain inactive. In a similar way, the Tonoi require to become a body of many musical phrases (μέλη), if they are to activate (i.e. to produce sounds). In this connection these signs (στοιχεῖα) have been invented - two of them to indicate high pitch, the other two to indicate low pitch - in order that they (the Tonoi) <may activate> by means of these (the Pneumata). Certainly, they (the Pneumata) are also activating in themselves; but their activity is "dead".

NOTES:

- \* 1. The syntax in 3-6 is somewhat loose, but there is no need to correct.
- \* 2. 'Ἐνεργεῖν in its transitive sense seems to denote the realization of the potential sound as implied in the neumatic sign.

V 18. Ιστέον ὅτι ἡ ὄξεία μόνη ἐν-  
 έργειαν φέρει, δύοιν τὰ πνεύματα πάλιν δέ, διπλασιαζό-  
 μένα καὶ διπλὴ καλούμενα ἀπο-

P: Ιστέον ὅτι ἡ ὄξεία μόνη ἐν-  
 έργειαν φέρει δύοιν τὰ πνεύματα πάλιν δέ διπλασιαζό-  
 μενα καὶ διπλὴ καλούμενα, ἀπο-

5 τελεῖ κράτημαν. ὅμοίως καὶ ἡ  
ἀπόστροφος ἐνεργεῖ· διπλασιαζο-  
μένη γάρ τὸ αὐτὸν ἀποτελεῖ. καὶ  
πάλιν ἡ ὁξεία προσλαμβανομένη  
ἐτέραν ὁξείαν καὶ τὸ ήμέτονον  
10 ἡ τὸ κλάσμα· τριπλασιαζομένων  
δὲ καὶ μετὰ ἀποστρόφου ἐνός,  
λέγεται ἀπέσω ἔξω· ὅμοίως καὶ  
οἱ δύο ἀπόστροφοι μετὰ ὁξείας  
τὸ αὐτὸν λέγονται. πάλιν αἱ τρεῖς  
15 ὁξεῖαι μετὰ κεντημάτων δύο ἀπο-  
τελοῦσιν ἀνατρίχισμαν, καὶ ἐν-  
ειλητικὸν ἀνάσταμαν· ὅπερ καὶ  
αὐτὸν μετὰ διπλῆς ὁξείας καὶ  
πετασθῆς ἀποστρόφου καὶ δύο  
20 κεντημάτων συνίσταται· ταῦτα δὲ  
ὅπισσαν καὶ ἔμπροσθεν φωνὴν δι-  
ορίζουσι. πάλιν οἱ δύο ἀπό-  
στροφοι μετὰ δύο ὁξείων καὶ  
δύο κεντημάτων, εἴτε ἄνω εἰσὶν  
25 εἴτε κάτω, καὶ αὐτοὶ ἀνατρί-  
χισμαν λέγονται· εἰ δὲ ἡ ἵση  
φέρει ἀπόστροφον, εἴτε ἄνω εἴτε  
κάτω, βαρεία λέγεται· εἰ δὲ  
ἔχει δύο κεντήματα, λέγεται  
30 σεῖσμα· εὐρήσεις δὲ τοῦτο ὡς  
ἐπὶ τὸ πλεῖστον ἐν τῇ ἀρχῇ τῶν  
εἰρημῶν τοῦ πλαγίου δευτέρου.  
τὸ ὄλγον δὲ μετὰ ἀποστρόφου,  
καντε ἄνω καντε κάτω ἡ εἰς τὸ  
35 πλάγιον, καὶ αὐτὸν βαρεία λέγε-  
ται. οἱ δύο ἀπόστροφοι διάλοξοι  
καὶ αὐτοὶ βαρεία λέγεται· ὅμοί-  
ως καὶ οἱ τέσσαρεις.

5r

τελεῖ κράτημαν· ὅμοίως καὶ ἡ  
ἀπόστροφος ἐνεργεῖ· διπλασιαζο-  
μένη γάρ, τὸ αὐτὸν ἀποτελεῖ. καὶ  
πάλιν ἡ ὁξεία προσλαμβανομένη  
ἐτέραν ὁξείαν· καὶ τὸ ήμέτονον  
ἡ τὸ κλάσμα· τριπλασιαζομένων  
δὲ καὶ μετὰ ἀποστρόφου ἐνός,  
λέγεται ἀπέσω ἔξω· ὅμοίως καὶ  
οἱ δύο ἀπόστροφοι μετὰ ὁξείας,  
τὸ αὐτὸν λέγονται· πάλιν αἱ τρεῖς  
ὁξεῖαι μετὰ κεντημάτων δύο, ἀπο-  
τελοῦσιν ἀνατρίχισμαν· καὶ ἐν-  
ειλητικὸν ἀνάσταμαν· ὅπερ καὶ  
αὐτὸν μετὰ διπλῆς ὁξείας καὶ  
πετασθῆς ἀποστρόφου καὶ δύο  
κεντημάτων συνίσταται· ταῦτα δὲ  
ὅπισσαν καὶ ἔμπροσθεν φωνὴν δι-  
ορίζουσι· πάλιν οἱ δύο ἀπό-  
στροφοι μετὰ δύο ὁξείων καὶ  
δύο κεντημάτων, εἴτε ἄνω εἰσὶν  
εἴτε κάτω, καὶ αὐτοὶ ἀνατρί-  
χισμαν λέγονται· εἰ δὲ ἡ ἵση  
φέρει ἀπόστροφον· εἴτε ἄνω εἴτε  
κάτω, βαρεία λέγεται· εἰ δὲ  
ἔχει δύο κεντήματα λέγεται  
σεῖσμα· εὐρήσεις δὲ τοῦτο ὡς  
ἐπὶ τὸ πλεῖστον ἐν τῇ ἀρχῇ τῶν  
εἰρημῶν τοῦ πλαγίου δευτέρου·  
τὸ ὄλγον δὲ μετὰ ἀποστρόφου  
καντε ἄνω καντε κάτω, ἡ εἰς τὸ  
πλάγιον, καὶ αὐτὸν βαρεία λέγε-  
ται· οἱ δύο ἀπόστροφοι διάλοξοι,  
καὶ αὐτοὶ βαρεία λέγεται· ὅμοί-  
ως καὶ οἱ τέσσαρεις.

1, 4, 6, 7 notas musicas rubro colore scripsit P 7 κράτημαν post  
ἀποτελεῖ addidit Thibaut 16-17 εὐειλητικὸν legit Thibaut, quem  
secutus est Høeg (εὐειλ.).

## TRANSLATION:

18. NB. In single position, the Oxeia (/) is an activating sign, as are the Pneumata. But when it is written twice and is called Diple (//), its effect is (only) a lengthening. The Apostrophos (>) behaves in a similar way; for when it is written twice (>>) , its effect is the same (i.e. a lengthening). Also the Oxeia, when combined with another Oxeia and the Hemitonon or Klasma. But when there are three Oxeiai plus one Apostrophos, this is called Apeso Exo. The two Apostrophoi plus Oxeia are also called by this name (i.e. Apeso Exo). The three Oxeiai plus two Kentemata constitute Anatrichisma and "eneiletic" (or "eueiletic", see Notes) Anastama. The same (i.e. Anastama?) is also formed by means of Double Oxeia and Petaстhe, Apostrophos, and two Kentemata. These (i.e. the Dyo Kentemata) define (the size of) the interval, (depending on whether they are put) after or before. The two Apostrophoi plus two Oxeiai and two Kentemata - whether these are above or below - are also called Anatrichisma. And if the Ison carries an Apostrophos - above or below - it is called Bareia. But if the Ison has two Kentemata, this is called Seisma; this will mostly be found at the beginning of Heirmoi in Plagios Deuterios. Oligon plus Apostrophos - whether above or below or sideways - is also called Bareia. The two slanting Apostrophoi are also called Bareia; so are the four.

## NOTES:

- \* 1. From line 7 onwards there are no interlinear red neumes to support the description of the configurations. It is hard to tell whether or not an earlier stage of the text comprised such clarifications. There are no interlinear neumes in the corresponding passages, §§13-14; but on the other hand, details in §11 suggest that some symbols of notation have been dropped during the process of transmission (cf. note 4 ad §11).
- \* 2. The descriptions in 7 sqq. cover the following groups of neumes: 7-10: //, i.e. the Xeron Klasma (cf. §13). 10-14: // and >>/, two forms of Apeso Exo; the former of these is rarely found, but see e.g. Vatop. 1488,169r. 14-22: // (or //.) and //., Anatrichisma and/or Anastama (Floros I, 201-04). 22-26: >>/ (?) , Floros's "Anatrichisma IIb" (ibid. 216). 26-38: Various groups which are called Bareia. None of them, however, actually contain the Bareia neume itself: 〽 or 〽, 〽 (which is called Seisma in 28-30; the standard opening of Second Plagal Heirmoi referred to, however, is the group 〽. See below, note 3), 〽 or 〽 or ->, >. Finally, a Bareia consisting of four Apostrophoi is mentioned. For this group, see note 3 below.
- \* 3. Of the constellations listed in note 2, six are to be found in the Heirmologion Lavra Γ 9: 〽, 〽, and 〽 are frequent; -> (10r line 15), 〽 (21v line 12), 〽 (87v) - all of them corresponding to groups with \ in other MSS. This observation should be used to settle a *terminus post quem* for §18; for this "Seisma" seems to be found mostly in MSS of Floros's Coislin VI. See Floros I, 354-5 on the spread of Coislin VI from Constantinople shortly before 1100.
- \* 4. What is an ἐνειλητικόν (or εὐειλητικόν) ἀνάσταμα?
- \* 5. On the position of the Dyo Kentemata (20-22), cf. Floros I, 204 on the pair *Strěla světlaja* and *Strěla mračnaja*.

19. Ἐκ τούτου οὖν δείκνυται,      P: ἐκ τούτου οὖν δείκνυται,  
    ὅτι δύναται τις διὰ τῶν αὐτῶν      ὅτι δύναται τις διὰ τῶν αὐτῶν

τόνων μὴ παρόντων τῶν πνευμάτων συντιθέναι μέλη· ούχ οὕτως δὲ 5 ὡς εἰ μετὰ τῶν πνευμάτων.

τόνων μὴ παρόντων τῶν πνευμάτων, συντιθέναι μέλη· ούχ' οὕτως δὲ ὡς εἰ μετὰ τῶν πνευμάτων.

## TRANSLATION:

19. As you can see from this, it is possible to express melodies by means of the Tonoi themselves, without Pneumata - though not in the same way as when these are included.

## NOTES:

- \* 1. Συντιθέναι is probably "to write down" rather than "to compose". Μέλη is either "melodies" or, more specifically, "melodic phrases". In the latter case, we might infer from ἐκ τούτου that the configurations in §18 were considered to be "μέλη" by the author of §19. (For the use of the term in theoretical texts, see Floros I,113-14).
- \* 2. Short though it is, §19 is quite enigmatic. Its "message" seems to be that Pneumata are useful elements of the notation, though not absolutely necessary. But is this, really, a reasonable conclusion to draw from the data in §18? Or, to put it differently: Is §18 a natural statement to write as a background for the conclusion in §19? The Pneumata were introduced as a theme in §17, the question being τίνος χάριν ἔγενοντο. This question got its answer already at the end of §17, and the section on the Pneumata might have ended there. Besides, the θετέον of §18 suggests a fresh start, cf. §4 and §24. It would be more easy to understand §19 in terms of a later intrusion into the text, a scholion added to §18 at a time when Coislin notation had already been superseded by diastematic neumes. For whereas it would not be relevant to point out, in a Coislin context, that the μέλη in §18 are understandable without Pneumata, a remark of this kind would be more natural for a later "teacher", addressing himself to pupils who know about diastematic, "Round" notation. Tentatively, I therefore ascribe §19 to a later layer of the traditions embodied in the Paris MS.

20. Διαφέρει δὲ ἡ ὁξεία τῆς πετασθῆς ὡς πλείονα ἔχούσης τὴν δύναμιν. ὅτε δὲ ἀμφότερα ἐπάνω ἔχουσι τὰ πνεύματα, δια- 5 φορὰ οὐκ ἔστιν ἐν αὐτοῖς· ἐκ- τὸς δὲ τῶν πνευμάτων, δυνατω- τέρα ἔστιν ἡ πετασθὴ τῆς ὁξείας. 10 Ισοδυναμεῖ δὲ τῇ ὁξείᾳ τὸ ὄ- λιγον, εἰ καὶ ἀμφότερα μετὰ τῶν δύο κεντημάτων.

P: διαφέρει δὲ ἡ ὁξεία τῆς πετασθῆς· ὡς πλείονα ἔχούσης τὴν δύναμιν ὅτε δὲ ἀμφότερα ἐπάνω ἔχουσι τὰ πνεύματα· δια- φορᾶ οὐκ ἔστιν ἐν αὐτοῖς· ἐκ- τὸς δὲ τῶν πνευμάτων, δυνατω- τέρα ἔστιν ἡ πετασθὴ τῆς ὁξείας. 5v Ισοδυναμεῖ δὲ τῇ ὁξείᾳ τὸ ὄ- λιγον, εἰ καὶ ἀμφότερα· μετὰ τῶν δύο κεντημάτων·

9 καὶ fortasse corruptum; an κεῖται legendum?

## TRANSLATION:

20. Oxeia differs from Petasthe, the latter being more dynamic. However, when these two signs have Pneumata on top of them, there is no difference between them; but without Pneumata, Petasthe is more dynamic than Oxeia. The Oligon is dynamically equal to the Oxeia, when they occur together with Dyo Kentemata.

## NOTES:

- \* 1. If καὶ (9) is not to be corrected into κεῖται (or κεῖνται?), it is probably not to be combined with εἰ - and καὶ ἀμφότερα should then be taken to be an equivalent to καὶ τὰ δύο (= both, apparently a "Balkanism" - cf. e.g. Bulgarian И двамата).
- \* 2. It may be reasonable to state that there is no dynamic difference between the combinations 〽 and 〽 (8-10). But the postulated disappearance of the dynamic distinction between Oxeia and Petasthe when these are combined with Pneumata is strange. Notice also that the same information is given twice (in 2-3 and 6-7). Could it be that 3-7 belongs to the same late layer as §19?

21. Τόνοι δὲ τοῦ ἀσματός εἰσιν οὕτοι· ισότης, ὀλίγον, μετ' ὀλίγον, μέσον, ὑπέρμεσον, ἄκρον καὶ τέλειον· κατὰ δὲ τὴν < ι-	P: τόνοι δὲ τοῦ ἀσματος, εἰσὶν οὕτοι· ισότης· ὀλίγον μετ' ὀλίγον· μέσον· ὑπέρμεσον· ἄκρον καὶ τέλειον· κατὰ δὲ τὴν
5 στορίαν? > οὐτερον ἐπηυξύνθησαν < εἰς τε' ? > παρὰ τῶν ἵκανῶς τὴν αὐτῶν ἀκριβωσαμένων δύναμιν.	ὕτερον ἐπαυξυνθεῖσαν παρὰ τῶν ἵκανῶς τὴν αὐτῶν ἀκριβωσαμένων δύναμιν,
5 ἐπαυξυνθεῖσαν P 4 - 6 emendaui ut potui	7 ἀκριβωσαμένην Thibaut

## TRANSLATION:

21. The Tonoi of Ancient Music are the following: Ison, Oligon, Metolygon, Meson, Hypermeson, Akron, and Teleion. According to tradition, their number was later-on increased to fifteen "by those who sufficiently understood their function".

## NOTES:

- \* 1. The names of the seven strings look like a mixture of Byzantine and Ancient terms. In §102 the traditional names are given. One of these occur at both places, the Hypermeson or Hypermese; this term, according to Vincent p. 270 note 2, is a speciality of Nicomachos's for the usual Lichanos. The beginning of the Lavra-list may reflect a similar tradition, with its counting of seven φωναὶ (numbered α-ζ) and the term τελέτα for the uppermost of these.
- \* 2. The text of the Paris MS is undoubtedly corrupt in 4 sqq. My "emendation" is meant as a suggestion, only. I take the reading ἐπαυξυνθεῖσαν to be a conjecture which was introduced after one or more words had fallen out.

\* 3. The precise meaning of the latter part of this paragraph escapes my understanding. The first lines evidently refer to the seven-stringed "Organon" (cf. §103), consequently ἄσμα must be Ancient Music. The neumes of the Church do not occur until §22, consequently lines 4 sqq. must describe a later development within the Ancient tradition - in all likelihood the formation of τὸ τέλειον σύστημα. Evidently, then, something has fallen out during the transmission of the text, referred to by αὔτῶν (7). But why are the inventors of the system described in this curious way?

22. Τοσαῦτα καὶ αἱ τῶν φωνῶν ἔδιότητες τῶν ἐν ἐκκλησίᾳ παραδεδομένων προσάρδεσθαι τῷ Θεῷ εἰσὶν, οἱ δεκαεννέα ποσούμενοι 5 μετὰ τῶν τεσσάρων πνευμάτων καὶ στοιχείων λεγομένων· ὅν καὶ τὰ δύνοματά εἰσι ταῦτα· Ἰσον, ὁλίγον, δεξεία, πετασθή, κούφισμα, βαρεία, ἀπόστροφος, κατάβασμα, 10 κύλισμα, ἀνατρίχισμα, ἀπόδερμα, ἀντικένωμα, ἔηρὸν ολάσμα, κράτημα, σύρμα. σὺν αὐτοῖς τὰ τέσσαρα πνεύματα· κέντημα, ὑψηλή, χαμηλὸν καὶ ἐλαφρόν. δμοῦ 15 δεκαεννέα καὶ ἡμίτονα τρία· σεῖσμα, ολάσμα μικρὸν καὶ παρακλητική.

1 an τοσαῦτα legendum?

TRANSLATION:

22. So many (i.e. 15) are also the distinct properties of the sounds which in the tradition of the Church are sung in God's honour - reckoned to nineteen if the four Pneumata are included, the so-called Stoicheiai. Their names are: Ison, Oligon, Oxeia, Petasthe, Koushima, Bareia, Apostrophos, Katabasma, Kylisma, Anatrichisma, Apoderma, Antikenoma, Xeron Klasma, Kramema, and Syrma. Together with these are reckoned the four Pneumata: Kentema, Hypsele, Chameleon, and Elaphron. Nineteen in all, plus three Hemitona: Seisma, Klasma Mikron, and Parakletike.

NOTES:

\* 1. In lines 1-6, the author has attempted to describe the Byzantine neumes in refined words, instead of sticking to the σημάδια of §12 or the τόνοι of §§13,17 etc. The result is somewhat confusing - e.g. the use of masculine forms in 4 (maybe influenced by a non-expressed τόνοι?) or the construction with infinitive in 2-3. His "terminology" has a philosophical

P: τοσαῦτα καὶ αἱ τῶν φωνῶν ἔδιότητες· τῶν ἐν ἐκκλησίᾳ παραδεδομένων· προσάρδεσθαι τῷ Θεῷ εἰσὶν· οἱ δεκαεννέα ποσούμενοι μετὰ τῶν τεσσάρων πνευμάτων καὶ στοιχ[ει]ῶν λεγομένων· ὅν καὶ τὰ δύνοματα εἰσὶ ταῦτα· Ἰσον· ὁλίγον· δεξεία· πετασθή· κούφισμα· βαρεία· ἀπόστροφος· κατάβασμα· κύλισμα· ἀνατρίχισμα· ἀπόδερμα· ἀντικένωμα· ἔηρὸν ολάσμα· κράτημα· σύρμα· σὺν αὐτοῖς τὰ τέσσαρα πνεύματα· κέντημα· ὑψηλή· χαμηλὸν καὶ ἐλαφρόν· δμοῦ δεκαεννέα καὶ ἡμίτονα τρία· σεῖσμα· ολάσμα μικρόν, καὶ παρακλητική·

ring (αἱ τῶν φωνῶν ἔδιστητες in 1-2); this may be the reason why it is so difficult to grasp the exact meaning of αἱ φωναὶ ("intervals" or "sounds" or "melodies"?). His choice of the verb προσάρδεσθαι (3) might perhaps be explained from the obvious similarity of the neumes and the grammatical signs of προσφύδλα.

\* 2. The list (7-12) is discussed by Floros (Neumenkunde I,113-7 and III,36). Its connection with §§10-13 is evident. But one small detail should be noticed: §22 uses the term κράτημα (12), whereas the original list in §11 seems to have had μέγα κράτημα (cf. §13!). In his table (III,36) Floros silently corrects §22 into Mega Kratema - but the small difference in terminology may betray that the two lists were not identical, though the magic number of fifteen was the same.

23. Ταῦτα ὄρθῶς εἴ τις ἐπισκοπήσει, ἔρει ἐκ τῶν τῆς μουσικῆς τόνων ἐπενοήθησαν καὶ οἱ τῶν μελωδῶν τόνοι. ληρεῖν ἐοίκασιν 5 οἱ τὰ τῶν γραμματικῶν συλλῶντες θεωρήματα καὶ τοῖς τόνοις ἐπιτιθέντες· ὡς οἱ γραμματικοὶ κατὰ μέμησιν τῶν ἀδόρων τῆς 10 γράμματα, οὕτω δὴ καὶ οὕτοι τοὺς ἀδόρους· καὶ ὡς ἐκεῖνοι κατὰ μέμησιν τῶν ζεπτῶν ἔχειν τὰ ζεπτά φωνήεντα, οὕτω δὴ καὶ οὕτοι τὰ ζεπτά φωνήεντα. οὕτω δὴ καὶ οὕτοι τὰ ζεπτά φωνήεντα. 15 εντα, καὶ ἔτερα τινά.

P: ταῦτα ὄρθῶς εἴ τις ἐπισκοπήσει· ἔρει ἐκ τῶν τῆς μουσικῆς τόνων, ἐπενοήθησαν καὶ οἱ τῶν μελωδῶν τόνοι, ληρεῖν ἐοίκασιν οἱ τὰ τῶν γραμματικῶν συλλῶντες θεωρήματα, καὶ τοῖς πόνοις ἐπιτιθέντες· ὡς οἱ γραμματικοὶ κατὰ μέμησιν τῶν ἀδόρων τῆς γράμματα, οὕτω δὴ καὶ οὕτοι, τοὺς ἀδόρους· καὶ ὡς ἐκεῖνοι κατὰ μέμησιν τῶν ζεπτῶν ἔχειν τὰ ζεπτά φωνήεντα· οὕτω δὴ καὶ οὕτοι τὰ ζεπτά φωνήεντα· οὕτω δὴ καὶ οὕτοι τὰ ζεπτά φωνήεντα καὶ ἔτερα τινά:—

6 τόνοις Thibaut πόνοις P      13 ἔχειν P, sed confer lin 9

#### TRANSLATION:

23. If you reflect properly on these facts, you will admit that the Tonoi of the melodes have been invented from the Tonoi of Ancient music. Apparently it is pure nonsense to steal the theories of the grammarians - as some do - and apply these to the Tonoi: In the same way as the grammarians say that their 24 letters are an imitation of the 24 hours of the night-and-day, these persons interpret the 24 Tonoi. And just as the former declare that the seven vowels (φωνήεντα) imitate the seven planets, the latter explain their seven sounds (φωνήητα). And there is more of the same kind.

#### NOTES:

\* 1. The juxtaposition of the Ancient and Ecclesiastical musical notation (1-4) occurred already in §§10 and 22-23. Notice the changing terminology,

a phenomenon which can be explained in more than one way (e.g. stylistically, or being due to different sources).

- \* 2. Thibaut's silent correction of P's πόνοις (6) is as good as it is small. It cannot be totally excluded, however, that the MS reading is sound; τοῖς πόνοις ἐπιτιθέντες might convey the idea that these theoreticians of music transferred such numeric speculations from grammatical treatises "to their own products". In favour of this interpretation one may point out that both πόνοις and συλληπτές are emotionally loaded words.
- music transferred such numeric speculations from grammatical treatises "to their own products". In favour of this interpretation one may point out that both πόνοις and συλληπτές are emotionally loaded words.

VI 24. Ιστέον ὡς ἡ Ἰση φωνὴν οὐκ  
ἔχει, οὗτε ἀντιοῦσαν οὕτε ιατ-  
ιοῦσαν, ἀλλ᾽ ἔστι τοῖς τόνοις  
ἄπασι ταπεινούμενη ὅπου δ᾽ ἀν  
5 εὐρεθῇ, καντε εἰς ὀξύτητα φωνῆς  
καντε εἰς χαμηλότητα· καὶ ὑπο-  
τάσσει καὶ ὑποτάσσεται.

7 καὶ οὐχ ὑποτάσσεται coniecit T

P: Ιστέον ὡς ἡ Ἰση φωνὴν οὐκ  
ἔχει, οὗτε ἀντιοῦ[σ]αν, οὕτε ιατ-  
ιοῦσαν· ἀλλ᾽ ἔστι τοῖς τόνοις  
ἄπασι ταπεινούμενη, ὅπου δ᾽ ἀν  
εὐρεθῇ· καντε εἰς ὀξύτητα φωνῆς,  
καντε εἰς χαμηλότητα· καὶ ὑπο-  
τάσσει καὶ ὑποτάσσεται.

#### TRANSLATION:

24. NB. The Ise has no interval value (φωνή), neither ascending nor descending, but wherever it is to be found - whether in high or in low pitch - it humbly follows any (preceding) note. It subordinates, and it is subordinated.

#### NOTES:

- \* 1. The curious expression in 3-4 about the Ison as being τοῖς τόνοις ἄπασι ταπεινούμενη must refer to its function of sign for repetition of pitch. A related text (Tardo p.170,13-19) expresses this more clearly: 'Η Ἰση... ἔστιν τοῖς ἄπασι τόνοις ἀκόλουθος καὶ ἵστηται φέρουσα τῆς τοῦμπαλὸν ἔρχομένης φωνῆς (i.e. the immediately preceding note)....έξ οὖ καὶ τὴν ἐπωνυμίαν ἔσχημεν (read: ἔσχηκεν)· ήτ' ἀν γὰρ εἰς ὀξύτητα φωνῆς εὐρεθῇ ήτ' ἀν χαμηλότητα, ἔκείνων δέχηται (i.e. δέχεται) τὴν φωνήν.
- \* 2. For ὅπου δ᾽ ἀν (or ὁπουδάν) see Sophocles s.v. and D. Tabachovitz, Études sur le grec de la basse époque. Uppsala 1943, pp.26-29.
- \* 3. The last statement in this short paragraph has caused much trouble to subsequent generations of teachers. We find a curious demonstration of this in the Erotopokriseis of Lavra 1656 (Tardo 218,23-219,22) where the ὑποτάσσεται-notion is dismissed as being utterly silly. In a way, however, the Hagiopolites makes good sense: When combined with other neumes, the Ison certainly subordinates (in so far as it annuls the interval value of the other neume); but it is also subordinated (in so far as its φωνή is produced with the dynamic quality of the other neume). But admittedly, the lapidary phrasing of our text seems to demand to be orally elaborated by a teacher!

25. Τὸ δὲ ὄλίγον ἔχει φωνὴν μίαν, ὁμοίως καὶ ἡ πετασθή καὶ ἡ ὁξεῖα. ἀποροῦσι δέ τινες, τί 5 δήποτε οὐχ ἐν ἐτέθη σημάδιον ἔχον μίαν φωνὴν, ἀλλὰ τρία ἔχοντα ἀνὰ μίαν φωνὴν, καίτοι τὸ ἐν ἥρκει <ἀν> ἀντὶ μιᾶς φωνῆς πανταχοῦ. πρὸς οὓς λέγομεν, δτι 10 διαφοραὶ εἰσι φωνῶν· ἡ μὲν ὁξεῖα, τὴν δὲ ὁμαλήν, ἡ μέσον τούτων. ἔνεκεν τῆς φωνῶν διαφορᾶς ἐτέθησαν καὶ διάφορα σημάδια· οὐ μόνον δὲ διὰ τοῦτο, 15 ἀλλὰ καὶ διὰ τὴν ἐναλλαγὴν τῆς χειρονομίας.

7 ἥρκα Thibaut ἀν suppleui 8 π α χου Perne, πα[ντ]αχοῦ Høeg,  
πα[ρε]σχ[εῖν] Thibaut 9 haud dubie corruptus varie emendari pot-  
est, e.g. ἡ μὲν ὁξεῖα, <ἢ ἡ δὲ....>, ἡ δὲ ὁμαλή ἡ (vel ἡ) μέσον τού-  
των, vel ἡ μὲν ὁξεῖα, ἡ δὲ ὁμαλή, ἡ <δὲ> μέσον (vel μέσην) τούτων;  
vide annotationem nostram

## TRANSLATION:

25. The Oligon "has one sound" (i.e. denotes the interval of one step), and so has the Petasthe and the Oxeia. Some people wonder why three signs have been made to denote one sound - and not only one - though one sign would have sufficed everywhere. Our answer to these people is that the sound is realized in different ways - the step being a sharp one, a smooth one, or in between. The different signs were made because of this difference of sounds - and also because of the change of cheironomy.

## NOTES:

- \* 1. As usually, the word φωνὴ is difficult to render. In 1-8 it refers to the interval, in 8-11 to the dynamic quality of the sound. The expression διαφοραὶ φωνῶν (9 and 11-12) does not refer to any difference as to the size of intervals.
- \* 2. It is difficult to find a safe remedy for the corrupt text in 9-11; I have suggested two different emendations. Obviously, the passage deals with the three signs Oligon Petasthe and Oxeia. The adjective ὁξεῖα evidently covers the dynamic quality of the Oxeia sign. The third of the signs being described as μέσον (or μέση?) between the others, the crucial point must be the adjective ὁμαλή. As long as we do not know the implication of the word (is the "even" or "smooth" sound characteristic for the neutral Oligon or for the small flourish of the Petasthe?), we cannot decide whether

P: τὸ δὲ ὄλιγον ἔχει φωνὴν μίαν, ὁμοίως καὶ ἡ πετασθή καὶ ἡ ὁξεῖα· ἀποροῦσι δέ τινες, τὸ δήποτε οὐχ ἐν ἐτέθη σημάδιον 6ν ἔχον μίαν φωνὴν, ἀλλὰ τρία ἔχοντα, ἀνὰ μίαν φωνὴν· καίτοι τὸ ἐν ἥρκει ἀντὶ μιᾶς φωνῆς πα[ντ]αχοῦ· πρὸς οὓς λέγομεν· δτι διαφοραὶ εἰσι φωνῶν· ἡ μὲν ὁξεῖα· ἡ δὲ ὁμαλή· ἡ μέσον τούτων· ἔνεκεν τῆς φωνῶν διαφορᾶς, ἐτέθησαν, καὶ διάφορα σημάδια· οὐ μόνον δὲ διατοῦτο· ἀλλὰ καὶ διὰ τὴν ἐναλλαγὴν τῆς χειρονομίας·

"sharp" and "smooth" are the two extremes of the dynamic scale, or the notion of "smoothness" belongs to the middle position; in the latter case, we do not know how the sound should be termed which lies dynamically most removed from the *Oxeia*.

26. Ὁ ἀπόστροφος ἔχει φωνὴν μίαν, καὶ οἱ δύο ἀπόστροφοι μίαν. ἀποροῦσι δέ τινες πρὸς τοῦτο, πῶς γίνεται. πρὸς οὓς. 5 φαμεν, ὅτι κυρίως τόνοι εἰσὶ τέσσαρεις· ὀλίγον, ὁξεία, πετασθή, καὶ ἀπόστροφος. τὸν οὖν ἐπὶ τὸ κεῖσθαι τὰ κατιόντα πνεύματα - τὸ ἑλαφρόν φημι καὶ 10 τὴν χαμηλήν - ἔμπροσθεν τοῦ ἀποστρόφου διακρίνῃ,† διὰ τὸ φωνὴν ούν ἔχει ὁ ἀπόστροφος· ἀλλὰ εἰ τύχοι ἔμπροσθεν ὧν τοῦ πνεύμα<τος>, τὴν μὲν φωνὴν 15 ἔχει<sup><ν></sup> τὸ πνεῦμα γινώσκεις, τὸν δὲ ἀπόστροφον μή, κλείεσθαι <δέ> ὑπ' αὐτοῦ διὰ τὸ μή ἔχειν φωνὴν ἀλλ' ὡς τόνον κεῖσθαι. 20 οἶνευ γάρ αὐτοῦ οὗτε ἑλαφρὸν γράφεται οὕτε χαμηλή, εἰ μή που μετὰ τῶν μεγάλων σημαδίων γραφήσονται. πῶς γάρ ἡδύνατο δεῖς ἀπόστροφος καὶ πνεῦμα εἶναι καὶ τόνος, εἰ μή τις ήν 25 ἐν αὐτῷ διαφορὰ πρὸς τὸ δια- κρίνασθαι;

P: ὁ ἀπόστροφος ἔχει φωνὴν μίαν· καὶ οἱ δύο ἀπόστροφοι μίαν· ἀποροῦσι δέ τινες πρὸς τοῦτο πῶς γίνεται· πρὸς οὓς, φαμέν· ὅτι κυρίως τόνοι εἰσὶ τέσσαρεις· ὀλίγον· ὁξεία· πετασθή, καὶ ἀπόστροφος οὐν· οὖν ἐπὶ τὸ κεῖσθαι τὰ κατιόντα πνεύματα· τὸ [έ]λαφρὸν φημὶ καὶ τὴν χαμηλήν· ἔμπροσθεν τοῦ ἀποστρόφου· διακρίνειν, διατίνειν ούν ἔχει ὁ ἀπόστροφος· ἀλλὰ οὖν τύχειν ἔμπροσθεν αὐτοῦ πνεῦμα· τὴν μὲν φωνὴν 7r ἔχει τὸ πνεῦμα γινώσκεις· τὸν δὲ ἀπόστροφον μή κλείεσθαι ὑπ' αὐτοῦ διὰ τὸ μή ἔχειν φωνὴν, ἀλλ' ὡς τόνον κεῖσθαι. οἶνευ γάρ αὐτοῦ, οὕτε ἑλαφρὸν γράφεται, οὕτε χαμηλή· εἰ μή που μετὰ τῶν μεγάλων σημαδίων γραφήσονται· πῶς γάρ ἡδύνατο, δεῖς ἀπόστροφος καὶ πνεῦμα εἶναί<sup>[ι]</sup> τόνος, εἰ μή τις ήν ἐν αὐτῷ διαφορὰ, πρὸς τὸ δια- κρίνασθαι:-

7-11 locus corruptus, vide annotationem nostram  
11 ἀποστρου(φου) P ante correcturam, correxit ipse in scribendo  
11 διατί P, διότι coniecit Ebbesen 13 εἰ τύχοι coniecit Høeg,  
δέ τύχει P, οἱ τύχοι Thibaut. ὧν τοῦ conieci, αὐτοῦ P 14 πνεύματος  
conieci, πνεῦμα P 15 ἔχειν conieci, ἔχει P an γινώσκε legendum?  
16 κεῖσθαι Thibaut 17 δὲ suppleui 24 τι Thibaut

#### TRANSLATION:

26. The Apostrophos "has one sound" (cf. §25,1-2), and so have the Dyo Apostrophoi. Some people wonder how that can be. Our answer is that strictly speaking there are four Tonoi: Oligon, Oxeia, Petasthe, and Apostrophos. (The next lines are corrupt and cannot be translated; see Notes) .... why the Apostrophos has no sound (in this situation); but if it (i.e. the Apostrophos) is placed before the Pneuma, you realize that it is the Pneuma - and not the Apostrophos - which has the sound, and that it (i.e. the Apostrophos) is "enclosed" by this sign (i.e. the Pneuma), because it (i.e. the Apostrophos) has no sound but is only placed as Tonos (i.e. neumatic sign). For without this sign (i.e. the Apostrophos) one writes neither Elaphron nor Chamele - except when these (i.e. the Pneumata) are written in combinations with the Megala Semadia. For how would it be possible for one Apostrophos to function both as a Pneuma and a Tonos, if there were no difference in it which could be observed?

## NOTES :

- \* 1. The transmitted text needs a considerable amount of emendations to yield a reasonable sense; no doubt, my present reconstruction needs to be revised - especially if a solution can be found to the corrupt lines 7-11. This solution might very well imply a loss of several lines of text, though it is not easy to define the exact place of a lacuna.
- \* 2. In lines 7-11, the expression ἐπὶ τὸ κεῖσθαι τὰ κατιόντα πνεύματα ἔμπροσθε τοῦ ἀποστρόφου would imply the neumatic groups  $\wedge\wedge$  and  $\times\times$ ; both of these are impossible, the correct configurations being  $\wedge\wedge$  and  $\times\times$ . At first, the transmitted text seems to find a support in lines 13-14, where P reads οὐ τύχει (i.e. εἰ τύχου) ἔμπροσθεν αὐτοῦ πνεῦμα ("if a Pneuma is placed in front of the Apostrophos"). But we have no guarantee that 13-14 are correct, and only a couple of slight corrections are needed to make 13-14 correspond to usual neumatic practice. In a way, what really intrigues is why a copyist could possibly produce these absurd descriptions. His familiarity with musical manuscripts must have been very limited, indeed!
- \* 3. The problem which is discussed in §26 is the intervallic identity between  $\wedge$  and  $\wedge\wedge$ , both denoting one descending step. Evidently the paragraph belongs to a later layer - exactly as did the preceding paragraphs with their descriptions of Middle Byzantine notational system. Most of the reasoning (7-22) consists of remarks on situations where an Apostrophos loses its interval value (viz. when placed in front of a Pneuma). In such situations the Apostrophos, in the terminology of lines 17-18, "has no φωνή but is put as τόνος". I therefore infer that the explanation of the Dyo Apostrophoi would have to be that in this configuration the first Apostrophos is considered to be a Tonos, and that the μέλα φωνή (2-3) belongs to the second Apostrophos, only. Apparently, then, the function of the second Apostrophos corresponds to the function of Elaphron or Chamele, the parallel being so relevant for our author that he ends up by the amazing statement that the Apostrophos at times is a Pneuma!
- Further corrections of the text would have to fit into this general line of thought.
- \* 4. The syntactical structure of 7-18 is unclear, and some of my deviations from the punctuation of P may, in the end, turn out to be wrong.
- \* 5. In 14-17 the lacunas come so regularly that one gets the impression that the model manuscript, somehow, was physically damaged. Spilled ink? Worm holes? Or ultra-short lines damaged at a coherent area of the page,

maybe through a loss of an outer margin? Strange as this notion of ultra-short lines may seem to be, it finds some support in the following consideration: As already pointed out, the model manuscript of P (or one of his models) seems to have contained several marginal entries (cf. ad §12). Can it be that the entire Middle Byzantine layer was such marginal entries into a model which originally contained only the "old" Hagiopolites text? We have at least one parallel, the famous Venetus Marcianus app.VI,3 - a 12th cent. parchment volume in the margins of which a 14th cent. scribe added a number of complete texts of ancient musical theory (see Jan, *Musici Scriptores Graeci*, Lpz. 1895, pp.XVI-XXIV).

VII 27. Π<ν>εύματα δέ εἰσι τέσσαρα·  
κυρίως δέ δύο, τὸ ὑψηλὸν καὶ ἡ  
χαμηλή. ἀπορήσειε δ' ὅν τις, διὰ  
τί τὰ μὲν δύο πνεύματα ἔχουσιν  
5 ἀνὰ δύο φωνῶν, τὰ δέ δύο ἀνὰ  
τεσσάρων. πρὸς οὖς ἀπαντήσομεν,  
ὅτι ἐπειδὴ δ τεχνικὸς ἐξέθετο  
τὰ ἔχοντα ἀνὰ μίαν φωνὴν σημά-  
δια, μέλλων μεταβαίνειν ἐπὶ τὸ  
10 καὶ σημάδια ἐκτίθεσθαι ἀνὰ δύο  
φωνῶν ἔχοντα, ἐπεὶ οὐκ ἦν δυ-  
νατὸν τὰς ἐν τῷ ἄμα ἐκτεινο-  
μένας φωνὰς ὑπὸ δύο σημαδίων  
γίνεσθαι ἀνὰ μίαν φωνὴν ἔχόν-  
15 των - εἰ γάρ ἦν ἐν τῷ ἄμα, ἀλλὰ  
καὶ μία καὶ μία ὀφειλον ἀνέρ-  
χεσθαι ἢ κατέρχεσθαι - τούτου  
χάριν τέθεικε τὰ δύο πνεύματα  
ἀνὰ δύο ἔχόντων φωνῶν, ἵνα ἐν  
20 τῷ ἄμα αἱ φωναὶ ἀνέρχονται. τὸ  
δ' αὐτὸν νοήσεις καὶ ἐπὶ τῶν δ'  
ἔχόντων φωνάς· ὥσπερ ἐπὶ τῶν  
δύο, οὕτω δὴ καὶ ἐπὶ τῶν δ'.

2 τὸ ὑψηλή P (fortasse cum Thibaut et Høeg retinendum)      ἢ om Thibaut  
3 ἀπορήσει Thibaut      5 ἀνὰ<sup>1</sup>] ἀνευ Thibaut      8-9 σημάδιν P      12-13 ἐκτεινο-  
μένας P, ἐτεινομένας Thibaut, quem secutus ἐκτεινομένας scripsi, ἐντεινομέ-  
νας Høeg (marg, cruce praefixo)      13 σημαδιων adhuc vidit Perne      15 ἢ γάρ  
ἐν τῷ ἄμα Thibaut, ἢ γάρ οὐκ ἐν τῷ ἄμα dubitans suppleuit Høeg, locum re-  
stituit Ebbesen      17 τούτο Thibaut (per errorem typographicum)  
21-22 δ ἔχόντων coniecit Høeg, δεχόντων P

P: Π εύματα δέ εἰσι τέσσαρα·  
κυρίως δέ δύο· τὸ, ὑψηλὴ καὶ ἡ  
χαμηλὴ· ἀπορήσειε δ' ἄν τις, διὰ  
τί τὰ μὲν δύο πνεύματα, ἔχουσιν  
ἀνὰ δύο φωνῶν, τὰ δέ δύο ἀνά-  
τεσσάρων. πρὸς οὖς ἀπαντήσομεν,  
ὅτι ἐπειδὴ δ τεχνικὸς ἐξέθετο  
τὰ ἔχοντα ἀνὰ μίαν φωνὴν σημά-  
διων· μέλλων μεταβαίνειν ἐπὶ τὸ  
καὶ σημάδια ἐκτίθεσθαι, ἀνὰ δύο  
φωνῶν ἔχοντα· ἐπεὶ οὐκ ἦν δυ-  
νατὸν τὰς ἐν τῷ ἄμα ἐκτεινο-  
μένας φωνὰς, ὑποδύο σημ[α]δίων  
γίνεσθαι· ἀνὰ μίαν φωνὴν ἔχόν-  
των· ἢ γὰ[ρ ἦν] ἐν τῷ ἄμα· ἀλλὰ  
καὶ μία καὶ μία· ὀφειλον ἀνέρ-  
χεσθαι ἢ κατέρχεσθαι, τούτου  
χάριν τέθεικε τὰ δύο πνεύματα,  
ἀνὰ δύο ἔχόντων φωνῶν· ἵνα ἐν  
τῷ ἄμα αἱ φωναὶ ἀνέρχονται· τὸ  
δ' αὐτὸν νοήσεις καὶ ἐπὶ τῶν δε-  
χόντων φωνάς· ὥσπερ ἐπὶ τῶν  
δύο, οὕτω δὴ καὶ ἐπὶ τῶν δ::-

## TRANSLATION:

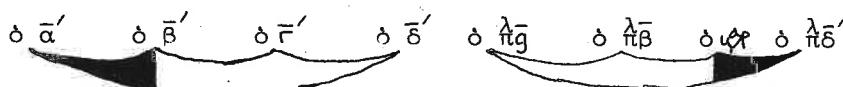
27. There are four Pneumata - properly speaking, however, there are only two: the Hypselon and the Chamele. One may wonder why two Pneumata contain two steps each, whereas each of the other two contains four. The answer is that when the author had exposed the signs which contain one step each, and wanted to pass on to exposing signs with two steps each, this was his reason to impose the two Pneumata with two steps each, namely in order that these steps can move together (i.e. be executed as a leap of one third). For it was impossible that the steps which should be taken together (i.e. as a leap) could be realized by means of two signs which contained one step each - for even if this had been possible, they might as well move up or down in stepwise movement, one by one. A similar consideration can also be applied to the signs which have four steps; the explanation concerning those with two is, of course, equally valid in the case of those with four.

## NOTES:

- \* 1. The question raised in this paragraph (3-6) is introduced by the expression ἀπορήσετε δ' ἀν τις, a favourite of Aristotelian commentators and other literature. In line 7, δ τεχνικός belongs to the same scholarly sphere, being a usual term for the "author" whose text is commented upon.
- \* 2. I fail to see why Hypsele and Chamele are more Pneumata than Kentema and Elaphron (lines 1-3). Curiously enough, these "Pneumata par excellence" do not reappear until the end of the paragraph (20-23). Obviously, they are not very important to the reasoning of our author - so why mention them so prominently in 1-3?
- \* 3. In his remarks, our author distinguishes between stepwise movement (μία καὶ μία 16) and leaps (ἐν τῷ ἀμ 12,15,19-20). The signs by which these intervals are expressed, indicate seconds, thirds, and fifths (μία, δύο, or τέσσαρες φωναί). As there are more specimens of each type, he needs distributive expressions, with ἀνά. He here wavers in a most peculiar way: The "correct" way of describing would be, as in 8-9 and 14-15, σημάδια ἀνά μίαν φωνὴν ἔχοντα etc. But instead we find in P ἀνα δύο φωνῶν 5 and 10-11, ἀνά τεσσάρων 5-6, and ἀνά δύο ἔχόντων φωνῶν 19. In the last of these cases, the ἔχόντων is probably a copyist's error for ἔχοντα; but in the others, the genitives are less unlikely, being in accordance with the late usage of distributive ἀνά + genitive.

VIII 28. Υπ[οδώρ]ιος, ὑποφρύγιος, ὑπολύδιος, δώριος, φρύγιος, λύδιος, μιξολύδιος, ὑπομιξολύδιος:-

7v



1-3 symbola tonorum rubro colore scripsit P  
~~Υποδώριος~~ Perne, 'Υποδώριος coniecit Høeg

1 Υπ δύος' P ut videtur,  
δώριος P

## NOTES:

- \* 1. The modal signature for the Hypodorios has been lost in P. Perne's impossible reading (Ἄγ) shows that a signature was still extant at this time. I have supplied the missing 9.
- \* 2. In the Paris manuscript, the list of the ancient names is to be found at the end of fol. 7r, whereas the diagram follows on the next verso. The punctuation and the arrangement of the context (:- after §27 and after §28; 2; red initial letter at the beginning of §29) makes it hard to reconstruct the lay-out of the model manuscript. If the reference in §32 is to §28 (καθὼς ἀναγέγραπται ἐν τοῖς ἀνωθεν σχήμασι), one might infer that both parts of §28 were organic parts of the text. This, however, does not exclude the possibility that they were conceived as marginalia.
- \* 3. However that may be, §28 introduces §§29 sqq., the structural break being after §27.

29. Εἰπόντος ὅσα δὴ καὶ ἐξῆν περὶ τόνων διδασκαλίας, τίδη μεταβήνατ δέον καὶ ἐπὶ τὴν τῶν τίχων, ἵνα μὴ ἀτελής ὁ λόγος 5 ἀποληφθῇ. ἐν ᾧ φήσομεν τά τε ὄνόματα αὐτῶν καὶ τὰς συγγενείας καὶ διαφορὰς αὐτῶν, καὶ ἔτερά τινα.

P: Εἰπόντος ὅσα δὴ καὶ ἐξῆν περιτόνων διδασκαλίας· τίδη μεταβήνατ δέον καὶ ἐπὶ τὴν τῶν τίχων· ἵνα μὴ ἀτελής ὁ λόγος ἀποληφθῇ· ἐν ᾧ φήσομεν τά τε ὄνόματα αὐτῶν, καὶ τὰς συγγενείας καὶ διαφορὰς αὐτῶν, καὶ ἔτερά τινα·

## TRANSLATION:

IX 29. Having now said as much as possible on the subject of the Tonoi, it is time to turn to the Echoi, in order that our treatise shall not be discontinued without having reached its completion. In this part we shall speak of their names, their relationships and differences, and of other matters as well.

30. Τὰ μὲν οὖν ὄνόματα αὐτῶν προεγράφησαν, τὰ τε κυρίως καὶ τὰ τὴν τάξιν αὐτῶν δηλοῦντα. 5 τοῦτο δὲ δεῖ νοεῖν ἐπὶ τῶν τίχων, δτι οὐ ποσότητα φωνῶν ὄνομάζομεν ἀλλὰ ποιότητα· ὁξύτητα γάρ καὶ βαρύτητα καὶ βραχύτητα καὶ τελειότητα καὶ λαμπρότητα φωνῶν εἰώθαμεν λέγειν, 10 ἡ πάντα τῆς τοισδε φθογγῆς εἰσὶ σημαντικά, οὐ τῆς τόσης - καὶ ποιας ἵν' εἴπω μᾶλλον, ούχι

P: τὰ μὲν οὖν ὄνόματα αὐτῶν, προεγράφησαν τὰ τε κυρίως καὶ τὰ τὴν τάξιν αὐτῶν δηλοῦντα· τοῦτο δὲ δεῖ νοεῖν ἐπὶ τῶν τίχων, δτι ὑποσότητα φωνῶν ὄνομάζομεν, ἀλλὰ π[οι]ότητα· ὁξύτητα γάρ καὶ βαρύτητα· καὶ βραχύτητα· τελειότητα· καὶ λαμπρότητα φωνῶν εἰώθαμεν λέγειν ἄπαντα· τῆς πιλας δὲ φθογγῆς εἰσὶ σημαντικά· οὐ τῆς τόσης καὶ πίας ἵν' εἴπω μᾶλλον ούχι

πόσης. ὅστε οὐχὶ πρὸς ἀρέθμησιν  
ἡμῖν τῶν ἥχων τὰς σημασίας εἰσ-  
15 ἀγουσιν, ἀλλ' ἡ ποιὰ τοῦ μέλους  
φθοιγγὴ ἐκ τούτων παρίσταται.

2 τά] accentum addidit rubricator 2-3 καὶ τὰ scripsi, κατὰ P 5 οὐ πο-  
σότητα H̄eg, ὑποσότητα P 6 sqq lacunas suppleuit H̄eg 6-7 ὁξύτητα] ac-  
centum addidit rubricator 10 ἡ πάντα scripsi, ἀπαντα P (qui aliter in-  
terpunctit) τοιᾶσδε scripsi, πιὰς δὲ P 12-13 an ποιᾶς et ποσῆς scri-  
bendum?

## TRANSLATION:

30. Their names have already been written, both their proper names and those which indicate their order. As far as concerns the Echoi, however, it must be born in mind that we do not name the quantity of sounds, but the quality. For about sounds we normally use expressions like "shriillness", "deepness", "shortness", "completeness", and "clearness" - all of which denote the "such or such" sound, not the "so great" sound, or rather of what kind the sound is, not of what magnitude. Thus, the designations of the Echoi are not made for counting purposes but to represent the sound quality of the Melos.

## NOTES:

- \* 1. The subject-matter of §§30-32 is said to be αἱ τῶν ἥχων σημασίαι (§30, 14 and §32,28) or ὄνόματα (§30,1; cf. the preceding summary, §29,6). Evidently, however, the interest of the author is not the names themselves - neither "their proper names", i.e. the Ancient nomenclature, nor "those which indicate their order", i.e. the standard Byzantine nomenclature; for these he just gives a reference to §5, maybe also to the conspectus in §28. What really interests him is their order, the reason why the Hypodorian is put first, the Hypophrygian second, etc.
- \* 2. The transmitted text of lines 10-16 is corrupt. I have tried to correct its wording and punctuation in the light of lines 5-6, the key-word being ποιότης.
- \* 3. 'Ονομάζομεν (6) perhaps may be paraphrased as "the names which we use for the Echoi do not refer to 'magnitude' but to quality".
- \* 4. The erroneous idea that the names have to do with ποσότης (5-6) is dismissed once more, in 13-15 where the word ἀρέθμησις is used. In later theory, the word ποσότης (or τὸ ποσόν) refers to the size of intervals, a notion which would also be possible for ἀρέθμησις, if understood as "a counting of the number of φωνῶν for a given interval". However, both notions (of "magnitude" and of "counting") were introduced in the present context only to put the key-word ποιότης into relief; there is no reason to think that they refer to any reality in connection with the Echoi (such as a counting of the size of intervals between their relative position). The Byzantine nomenclature itself would sufficiently explain why the author got the idea to use these expressions as background for §§31-32.

31. Διεὰ [τί] τοῦτο οὐδὲ τὸ δώριον  
μέλος τὴν προτίμησιν ἐν τοῖς  
ἥχοις ἐδέξατο, τὸ δὲ ὑποδώριον,  
ώς κρείττονα λόγον ἔχον τῶν  
5 λοιπῶν ἥχων<sup>\*</sup> ὁμοίως οὐδὲ τὸ  
φρύγιον μέλος τὴν δευτέραν. τά-  
ξιν ἔσχεν ἐν τοῖς ἥχοις, ἀλλὰ  
τὸ ὑποφρύγιον<sup>\*</sup> καὶ <τὸ> λύδιον  
ώσαύτως τοῦ ὑπολυδίου οὐ προ-  
10 ετιμήθη.

8r

διατέ τοῦτο οὐδὲ τὸ δώριον  
μέλος τὴν προτίμησιν ἐν τοῖς  
ἥχοις ἐδέξατο<sup>\*</sup> τὸ δὲ ὑποδώριον  
ώς κρείττονα ἀλόγων ἔχον τῶν  
λοιπῶν ἥχων<sup>\*</sup> ὁμοίως [οἱ] οὐδὲ τὸ  
φρύγιον μέλος τὴν δευτέραν τά-  
ξιν ἔσχεν ἐν τοῖς ἥχοις<sup>\*</sup> ἀλλὰ  
τὸ ὑποφρύγιον καὶ λύδιον<sup>\*</sup>  
ώσαύτως τοῦ ὑπολυδίου οὐ προ-  
ετιμήθη.

1 τί seclusi 4 κρείττονα λόγον Ηθεγ, κρείττονα ἀλόγων P 8 ὑποφρύγιον  
καὶ λύδιον P, interpunctionem correxi, τὸ addidit Ebbesen

TRANSLATION:

31. This is also why the Dorian Melos did not receive the place of honour among the Echoi; this place was given to the Hypodorian, because it is better than the other Echoi. Nor did the Phrygian Melos receive the second position among the Echoi, but the Hypophrygian. And in the same way the Lydian was not given preference to the Hypolydian.

NOTES:

\* 1. The addition of τί (1) and the omission of τὸ (8) may be deliberate emendations. The text should then be understood as a series of questions: "Why is that? And why was the place of honour among the Echoi given to the Hypodorian and not to the Dorian, considering that the latter is better than the other Echoi? Similarly, why did the Phrygian Melos not receive the second place among the Echoi? But as to the Hypophrygian and Lydian, why were these not honoured more than the Hypolydian?" Although this text cannot be correct, it nevertheless betrays a certain level of ingenuity and cannot be due to the scribe of P who in the same context committed such nonsense as κρείττονα ἀλόγων (4) and ὑποφρύγιον (8).

32. Καὶ ἔδει αὐτοὺς ὡς τὴν τά-  
ξιν προέχοντας ἐξ ἀπλῶν ὄνομάτων  
καὶ μὴ ἀπὸ συνθέτων γνωρίζε-  
σθαι, οἷον τί φημι, τὸν πρῶτον  
5 ἥχον ἀπὸ δωρίου μέλους καὶ μὴ  
ἀπὸ ὑποδωρίου, καὶ τὸν δεύτερον  
ἀπὸ τοῦ φρύγιου καὶ μὴ ἀπὸ τοῦ  
ὑποφρύγιου, καὶ τρίτον δμοίως  
ἀπὸ λυδίου καὶ μὴ ἀπὸ τοῦ ὑπο-  
10 λυδίου, ὥσπερ δὴ ὁ τέταρτος  
[οὗν] ἀπὸ τοῦ δωρίου μέλους

P: καὶ ἔχει αὐτοὺς ὡς τὴν τά-  
ξιν προέχοντας ἐξαπλῶν ὄνομάτων  
καὶ μὴ ἀπὸ συνθέτων γνωρίζε-  
σθαι<sup>\*</sup> οἷον τί φημι τὸν πρῶτον  
ἥχον ἀπὸ δωρίου μέλους, καὶ μὴ  
ἀπὸ ὑποδωρίου<sup>\*</sup> καὶ τὸν δεύτερον  
ἀπὸ τοῦ φρύγιου, καὶ μὴ ἀπὸ τοῦ  
ὑποφρύγιου<sup>\*</sup> καὶ τρίτον δμοίως  
ἀπὸ λυδίου καὶ μὴ ἀπὸ τοῦ ὑπο-  
λυδίου<sup>\*</sup> ὥσπερ δὲ ὁ τέταρτος,  
οὐκ ἀπὸ τοῦ δωρίου μέλους

χαρακτηρίζεται - ἀλλ' ἐν τῇ εύ-  
τονίᾳ τῶν φθόγγων τὸ ὑπόδωριον,  
ἐν τῇ ἡδύτητι τὸ ὑποφρύγιον,  
15 ἐν δὲ τῇ χαλεπότητι τὸ ὑπολύ-  
διον· ἀ τοὺς πρώτους φθόγγους  
τῆς μουσικῆς διαρρήδην εἰσάγ-  
ουσιν. τούτου χάριν ἀπενεμήθη  
τῷ πρώτῳ ἡ ὑπόδωριος· καὶ ἐν  
20 τοῖς ἑτέροις, καθὼς ἀναγέγραπ-  
ται ἐν τοῖς ἀνωθεν σχήμασι·  
οὗτοι γάρ εἰσι τῶν μουσικῶν  
φθόγγων ἐπισημότατοι, καθὼς  
ἴσασιν οἱ τὰ τῶν μουσικῶν χορ-  
25 δῶν ἀπηκήματα εἰδότες καὶ δια-  
κρίνοντες ἐντέχνως. ἀλλὰ ταῦτα  
μὲν ὑπεγράφη πρὸς δήλωσιν τῆς  
τῶν ἥχων σημασίας.

1 ἔδει Ebbesen, ἔχει P 10 δὲ P 11 οὐκ seclusi 13 υπόδωριων adhuc  
vidit Perne 23 ἐπισημότατοι Ebbesen, ἐπισημότητα P 27 ὑπεγράφει P

---

TRANSLATION:

32. Also, since they (i.e. the three *Echoi* just mentioned) come first in order, one might think that they should be called from the simple names, not from the composite ones - the first *Echos*, e.g., from the Dorian *Melos* and not from the *Hypodorian*, the second from the *Phrygian* and not from the *Hypophrygian*, and similarly the third from the *Lydian Melos* and not from the *Hypolydian* - exactly as the fourth *Echos* is "characterized" from the Dorian *Melos* (i.e. has been called from a *Melos* which carries an incomposite name). But as far as vigour of the sounds is concerned, the *Hypodoriah* <prevails?>, in sweetness the *Hypophrygian*, and in harshness the *Hypolydian* - i.e. the *Mele* which are explicitly presented as "the first sounds of the *Mousike*". This is why the term 'Hypodorios' was assigned to the first *Echos*. Similarly in the other *Echoi*, as described in the above diagrams. For these (i.e. the three *Echoi* just mentioned) are the most remarkable of the "sounds of Music", as is well known by those who are familiar with the sounding of the musical chords and skilfully are able to distinguish between them. The above has been outlined to clarify the names of the *Echoi*.

---

NOTES:

- \* 1. The οὐκ in line 11 probably belongs to the same layer of 'emendations' as the readings mentioned in §31, note 1. Also, maybe, the δέ (for δῆ) in the preceding line.
- \* 2. The πρῶτοι φθόγγοι τῆς μουσικῆς (16-17) reappear in 22-23 as τῶν μουσικῶν φθόγγων ἐπισημότατοι. For a possible meaning of ἡ μουσική, see §10,

χαρακτηρίζεται· ἀλλ' ἐν τῇ εύ-  
τονίᾳ τῶν φθόγγων τὸ ὑποδώριον  
ἐν τῇ ἡδύτητι, τὸ ὑποφρύγιον·  
ἐν δὲ τῇ χαλ[ε]πότητι τὸ ὑπολύ-  
διον· ἀ τοὺς πρώτους φθόγγους  
τῆς μουσικῆς διαρρήδην εἰσάγ-  
ουσιν. τούτου χάριν ἀπενεμήθη  
τῷ πρώτῳ ἡ ὑπόδωριος· καὶ ἐν  
τοῖς ἑτέροις καθὼς ἀναγέγραπ-  
ται ἐν τοῖς ἀνωθεν σχήμασι·  
οὗτοι γάρ εἰσι τῶν μουσικῶν  
φθόγγων ἐπισημότητα καθὼς  
ἴσασιν οἱ τὰ τῶν μουσικῶν χορ-  
δῶν ἀπηκήματα εἰδότες καὶ δια-  
κρίνοντες | ἐντέχνως· ἀλλὰ ταῦτα  
μὲν ὑπεγράφει πρὸς δήλωσιν τῆς  
τῶν ἥχων σημασίας:-

8v

note 1. I am far from being sure, however, that I have understood this difficult paragraph correctly.

- \* 3. The passage where the three 'ύπο-modes' are characterized (12-16) reminds to some extent of Bryennius's description of the three genera (Harmonics I.7. ed. Jonker pp.112-14).
- \* 4. For ἀπόχημα as a term for 'sound' (25), see last line of §100. According to Hannick (in Herbert Hunger: Die hochsprachliche profane Literatur der Byzantiner. II, München 1978, pp. 189-90) it belongs to the terminology of Georgios Pachymeres.
- \* 5. The reference in 20-21 must be to §28.

X 33. Τεσσάρων τοίνυν ὅντων τῶν κυρίων καὶ πρώτων, ἐξ αὐτῶν ἐπεισόχθησαν οἱ τέσσαρεις πλάγιοι. τὸν αὐτὸν δὴ τρόπον καὶ ἐκ 5 τῶν τεσσάρων πλαγίων οἱ τέσσαρεις μέσοι, ἐν δὲ τῶν μέσων πάλιν αἱ φθοραὶ. οἷον τί φημι, οἱ μὲν τέσσαρεις πρῶτοι ἔχουσι τὸ ἀμεταποίητον, οἱ δὲ πλάγιοι ἔ- 10 χουσι τὰς ὑπαλλαγὰς αὐτῶν, ἐξ ὧν οἱ μέσοι ἀποτίκτονται. οἷον δὲ μέσος πρῶτος ἐν τῇ ὑποβολῇ τῆς ἀρχῆς αὐτοῦ καὶ ἐν τῇ ἀποθέσει τοῦ τέλους πᾶ' καὶ ἀρχεταὶ 15 καὶ τελειοῦται· ἡμιπλαγιοτεταρτίζει <δὲ>, καὶ τοῦτο ἔστιν ὅπερ ἔχει ἐπέκεινα τοῦ πᾶ'. δημοίως καὶ δὲ μέσος δεύτερος ἀπὸ τοῦ πᾶ' ἀρχόμενος ἔστιν· ἀλλ' 20 ἐὰν μεθ' ὃν ἐνηκήσῃς πλαγιοδεύτερον ἐπάγης ἐπήχημα τὸν νενανῶ, μέσος δεύτερος ψάλλεται. ὡσαύτως καὶ δὲ μέσος τρίτος ἀπὸ τοῦ βαρέως τίκτεται, ὡσπερ δὴ καὶ 25 δὲ μέσος τέταρτος ἀπὸ τοῦ πᾶ', καθὼς ἡμῖν δὲ λόγος πρὸς τὰ ἐξῆς παραστήσει ἀριδηλώτερον.

P: Τεσσάρων τοίνυν ὅντων τῶν κυρίων καὶ πρώτων ἐξ αὐτῶν ἐπεισόχθησαν οἱ τέσσαρεις πλάγιοι· τὸν αὐτὸν δὴ τρόπον καὶ ἐκ τῶν τεσσάρων πλαγίων, οἱ τέσσαρεις μέσοι· ἐκ δὲ τῶν μέσων πάλιν αἱ φθοραὶ· οἷον τί φημι, εἰ μὲν τέσσαρεις πρῶτοι, ἔχουσι τὸ ἀμεταποίητον· οἱ δὲ πλάγιοι ἔχουσι τὰς ὑπαλλαγὰς αὐτῶν· ἐξ ὧν οἱ μέσοι ἀποτίκτονται· οἷον δὲ μέσος πρῶτος ἐν τῇ ὑπερβολῇ τῆς ἀρχῆς αὐτοῦ καὶ ἐν τῇ ἀποθέσει τοῦ τέλους, πᾶ' καὶ ἀρχεταὶ καὶ τελειοῦται ἡμιπλαγιοτεταρτίζει· καὶ τοῦτο ἔστιν ὅπερ ἔχει ἐπέκεινα τοῦ πᾶ'. δημοίως καὶ δὲ μέσος δεύτερος ἀπὸ τοῦ πᾶ' ἀρχόμενος ἔστιν, ἀλλ' ἐὰν μεθ' ὃν ἐνηκήσῃς πλαγιοδεύτητος ἐπάγης ἐπήχημα τὸν νενανῶ μέσος δεύτητος ψάλλεται. ὡσαύτως καὶ δὲ μέσος τρίτος ἀπὸ τοῦ βαρέως τίκτεται· ὡσπερ δὴ καὶ δὲ μέσος τέταρτος, ἀπὸ τοῦ πᾶ' καθὼς ἡμῖν δὲ λόγος πρὸς τὰ ἐξῆς παραστήσει ἀριδηλώτερον·

7-8 εἰ μὲν P, correxit Høeg 12 ὑποβολῇ scripsi, ut in § 7, ὑπερβολῇ P  
13-14 lacunas supplevit Høeg 16 δὲ addidit Ebbesen 20 μεθ' ὃν P

## TRANSLATION:

33. The proper and primary Echoi, then, are four in number. From these the four Plagal have been derived. In the same manner also the four Mesoi have been made from the four Plagal, and again the Pthorai from the Mesoi. Or, to put it differently: The four primary Echoi are non-transformed, whereas the plagal ones have their changes, from which the Mesoi are generated. The Mesos Protos, for instance, begins and ends as Plagios Protos - in its beginning and its ending; it is somewhat related to Plagios Tetartos, the only feature which makes it different from Plagios Protos. In a similar way the Mesos Deuterios takes its beginning from Plagios Deuterios; but if, after the Plagios Deuterios Enechema, you add Nenano as Epechema, a Mesos Deuterios is sung. Similarly, Mesos Tritos is generated from Barys, just as Mesos Tetartos from Plagios Tetartos. The mechanism of all this will be described more clearly in the following.

## NOTES:

- \* 1. The way in which the Echoi are generated has been treated already in §§6-7. See also below, §§47-48.
- \* 2. The ἔχουσι τὸ ἀμεταποίητον (8-9) has the ring of a terminus technicus; it seems to convey the same idea as §6,2 (οὐκ ἐξ ἄλλων τινῶν ἀλλ᾽ ἐξ αὐτῶν).
- \* 3. Perhaps the ὑπαλλαγαί (10) denote changes in musical expression, e.g. occurrence of formulas which are alien to the Echos; cf. the exemplification in 11-17.
- \* 4. The verbal similarity between 11-17 and §7,1-6 is striking; but it is difficult to decide for which of the two paragraphs the text was originally coined. Maybe both are derived from a common source?

34. Ἐκ δὲ τῶν μέσων πάλιν εἰσήχθησαν αἱ φθοραί - ἐκ μὲν τοῦ μέσου πρώτου φθορὰ πρώτη, ὡσαύτως καὶ τῶν ἄλλων. φθοραὶ δὲ 5 ὀνομάσθησαν, ὅτι ἐκ τῶν ἵδιων ἥχων ἀπάρχονται, τελειοῦνται δὲ εἰς ἑτέρων ἥχων φθογγάς αἱ θέσεις αὐτῶν καὶ τὰ ἀποτελέσματα. ἵνα δὲ σαφέστερον γένηται 10 τὸ λεγόμενον, πότε καὶ ἐν ποίοις ἥχοις αἱ φθοραὶ τὴν ἐνέργειαν αὐτῶν ἐπιδείκνυνται, δέοντας ἐλογισάμην ὡς ἐν σχήματι διαχαράξαι αὐτούς:

¶: ἐκ δὲ τῶν μέσων πάλιν εἰσήχθησαν αἱ φθοραί ἐκ μὲν τοῦ μέσου πρώτου, φθορὰ πρώτη ὡσαύτως καὶ τῶν ἄλλων φθοραὶ δὲ ὀνομάσθησαν, ὅτι ἐκ τῶν ἵδιων ἥχων ἀπάρχονται τελειοῦνται δὲ εἰς ἑτέρων ἥχων φθογγάς αἱ θέσεις αὐτῶν καὶ τὰ ἀποτελέσματα. ἵνα δὲ σαφέστερον γένηται τὸ λεγόμενον, πότε καὶ ἐν ποίοις ἥχοις αἱ φθοραὶ τὴν ἐνέργειαν αὐτῶν ἐπιδείκνυνται, δέοντας ἐλογισάμην ὡς ἐν σχήματι διαχαράξαι αὐτούς:-

πά	ῆ'	Ἄθ'	ἄθ'	ῆ'	Ἄδ'	Ἄθ'	ῆ'	Ἄδ'
ἄθ'	ῆ'	Ἄδ'	ῆ'	Ἄθ'	Ἄδ'	[ θ']	Ἄθ'	Ἄδ'

14 an αὐτάς legendum? 15-16 ut in P tradita sunt; corruptelas infra  
(§ 35, annot. 3)emendare conauit

TRANSLATION:

34. From the Mesoi, again, the Phthorai were derived, the first Phthora from the Mesos Protos, etc. They were called Phthorai (*i.e. destroyers*), because they begin from their own Echoi, but their endings and cadences are on notes from other Echoi. In order that this can be more clear - when do the Phthorai display their effect, and in which Echoi? - I have found it necessary to depict them in a diagram.

NOTES:

- \* 1. I have taken θέσεις and ἀποτελέσματα (6-9) as synonyms, failing to see how θέσεις (in the usual meaning of "musical formulas") can be said to end (τελειοῦνται) εἰς ἔτερων ἥχων φθογγάς. Also in §48 we find that cadential formulas are described in synonyms ((πληρώματα and ἀποθέσεις)).
- \* 2. If αὐτούς in 14 is correct, it may refer to the modal signatures inscribed in the following diagram. For ἥχος as a term for "modal signature", see J.Raasted, Intonation Formulas and Modal Signatures... Copenhagen, 1966, p.43. Otherwise, a correction into αὐτάς will give a smooth text.
- \* 3. The diagram seems to be corrupt, see §35, note 3.

XI 35. 'Ιδού δὲ παρὼν σχηματισμὸς τὰ τῶν φθορῶν ἡμῖν ἔγνώρισεν ιδιώματα. εἰ δὲ γάρ ἀπὸ ἥχου πλαγιοπρώτου τὴν μελῳδίαν εἰς ἥ-  
5 χον βαρύν παρενεχθῆναι συμβαίνει - δὲ πολλάκις γίνεται τοῦ μέσου πρώτου μεσοιλαβοῦντος, δὲς ἐν τοῦ πλαγίου πρώτου τίκτεσθαι εἴωθεν, ὡς μικρὸν ἀνωθεν εἴρη-  
10 ται - ἢ ἀπὸ βαρέως ἥχου τὸ ἀνάπαλιν εἰς ἥχον λα' τὸ μέλος περιτρέπεται ἢ καὶ τέλειον καταλήγει' δὲ πολλάκις συμβαίνει, δηπονίκα μέσος τρίτος μεσο-  
15 λαβεῖ σοι ἐν τῷ μέλει τοῦ ἀσματος' δὲς μέσος τρίτος ἀπὸ τοῦ βαρέως ἥχου τὴν ὑπαρξιν ἔχει. εἴτε οὖν οὕτω εἴτε ἐκεῖνο γενηται, εύθέως ἡμῖν γνωστὸν καθ-  
20 ἴσταται ἢ πρώτη φθορά. ὕσπερ

P: 'Ιδού δὲ παρὼν σχηματισμὸς τὰ τῶν φθορῶν ἡμῖν ἔγνώρισεν ιδιώματα' εἰ δὲ γάρ ἀπὸ ἥχου πλαγιοπρώτου τὴν μελῳδίαν εἰς ἥ-  
5 χον βαρύν παρενεχθῆναι συμβαίνει' δὲ πολλάκις γίνεται τοῦ μέσου πρώτου μεσοιλαβοῦντος ὡς ἐκ τοῦ πλαγίου πρώτου τίκτεσθαι εἴωθεν ὡς μικρὸν ἀνωθεν εἴρηται' ἢ ἀπὸ βαρέος ἥχου τὸ ἀνάπαλιν εἰς ἥχον λα' τὸ μέλος περιτρέπεται' ἢ καὶ τέλειον καταλήγει' δὲ πολλάκις συμβαίνει δηπονίκα μέσος τρίτος μεσολαβεῖ σοι ἐν τῷ μέλει τοῦ ἀσματος' δὲς μέσος τρίτος ἀπὸ τοῦ βαρέως ἥχου τὴν ὑπαρξιν ἔχει' εἴτε οὖν οὕτω εἴτε ἐκεῖνο γενηται' εύθέως ἡμῖν γνωστὸν καθ-  
9v ἴσταται ἢ πρώτη φθορά' ὕσπερ

πάλιν δευτέρα φθορά γινώσκεται, ὅταν ἀπὸ ἥχου πᾶς ἀρξώμεθα καὶ ἐκτραπῶμεν εἰς πᾶς - ὃ πολλάκις γίνεται τοῦ μέσου δευτέρου παρε-

25 νεχθέντος, ὃς ἀπὸ τοῦ πᾶς ἀποτίκεται - ἡ τὸ ἀνάπαλιν ὅταν πᾶς ἀρξώμεθα καὶ εἰς πᾶς ἥχον ἐξενεχθῶμεν' ὃ γίνεται τοῦ μέσου τετάρτου εἰσαχθέντος ἐν τῇ τοῦ 30 ψαλλομένου μελῳδίᾳ, ὃς καὶ αὐτὸς ἀπὸ τοῦ πλαγιοτετάρτου γεννᾶται. δυοῖν τοῦτο δὲ καὶ ἡ τρίτη φθορά τῶν ἥχων καὶ ἡ τετάρτη οὕτως γινώσκεται· ἡ μὲν τρίτη,

35 ὅταν ἀπὸ βαρέως ἥχου εἰς πρῶτον ἥχον μέλος τῆς φωνῆς περιενεχθῇ, ἡ τούναντίον ἀπὸ ἥχου πρώτου εἰς ἥχον βαρύν· ἡ δὲ δ', ὅταν ἀπὸ 40 πᾶς ἀρξηται ἡ μελῳδία καὶ εἰς ἥχον δεύτερον περιτραπῆται καταλήξῃ, ἡ τὸ ἀνάπαλιν ἀπὸ τοῦ δευτέρου ἥχου εἰς πᾶς ἐξενεχθῇ. ἀλλὰ ταῦτα μὲν ἐξεθέμεθα πρὸς 45 τὸ γνωρίσαι δεκαέξι ἥχους εἶναι τοῦ ἄσματος, ὡς πολλάκις εἰρή- καμεν.

2 φθορῶν scripsi; φθόγγων P 7 ὡς P  
ἀρχόμεθα suppleuit Høeg 28 lacunam suppleui  
μένου scripsit P, deleuit rubricator 30 post φαλλομένου iterum  
τραπῆ quattuor puncta (⋮) sub lin add P  
fortasse suspicans

πάλιν δευτέρα φθορά γινώσκεται· ὅταν ἀπὸ ἥχου πᾶς ἀρξώμεθα καὶ ἐκτραπῶμεν εἰς πᾶς ὃ πολλάκις γίνεται τοῦ μέσου δευτέρου παρενεχθέντος· ὃς ἀπὸ τοῦ πᾶς ἀποτίκεται· ἡ τὸ ἀνάπαλιν ὅταν πᾶς ἀρξηται μεθα· καὶ εἰς πᾶς ἥχον ἐξενεχθῶμεν· ὃ γίνεται τοῦ μέσου τετάρτου εἰσαχθέντος ἐν τῇ τοῦ ψαλλομένου μελῳδίᾳ, ὃς καὶ αὐτὸς ἀπὸ τοῦ πλαγιοτετάρτου γεννᾶται· δυοῖν τοῦτο δὲ καὶ ἡ τρίτη φθορά τῶν ἥχων καὶ ἡ τετάρτη, οὕτως γινώσκεται· ἡ μὲν τρίτη, ὅταν ἀπὸ βαρέος ἥχου εἰς πρῶτον ἥχον μέλος τῆς φωνῆς περιενεχθῇ· ἡ τούναντίον ἀπὸ ἥχου πρώτου εἰς P: ἥχον βαρύν· ὃ δὲ δ ὅταν ἀπὸ πᾶς ἀρξηται ἡ μελῳδία, |καὶ εἰς ἥχον δεύτερον περιτραπῆται καταλήξῃ· ἡ τὸ ἀνάπαλιν ἀπὸ τοῦ δευτέρου ἥχου εἰς πᾶς ἐξενεχθῇ· ἀλλὰ ταῦτα μὲν ἐξεθέμεθα πρὸς τὸ γνωρίσαι δεκαέξι ἥχους εἶναι τοῦ ἄσματος ὡς πολλάκις εἰρή- καμεν·

27 ἀρξώμεθα adhuc vidit Perne,  
30 post φαλλομένου iterum  
39 ὃ P, correxi 41 post περι-  
τραπῆ quattuor puncta (⋮) sub lin add P (man sec ut videtur), lacunam  
fortasse suspicans

## TRANSLATION:

35. Please have a look at this diagram; it shows us the specific characteristics of the Phthorai:

A melody may move from Plagios Protos to Barys, frequently due to the occurrence of Mesos Protos which (as mentioned a little above) is normally generated from Plagios Protos; or vice versa the melody makes a shift from Barys to Plagios Protos - temporarily or to the very end - as it frequently happens when you come across Mesos Tritos "in the melody of the song"; for

Mesos Tritos derives its existence from Barys. In both these situations, then, we immediately realize the presence of the First Phthora.

Similarly, the Second Phthora is perceived when we begin from Plagios Deuterios and switch over to Plagios Tetartos, frequently in connection with Mesos Deuterios which is generated from Plagios Deuterios; or *vice versa*, when our beginning is Plagios Tetartos and we are being taken to Plagios Deuterios - as it happens when Mesos Tetartos is introduced "in the melody of the chant"; for this very Mesos is derived from Plagios Tetartos.

Similarly, also the Third and the Fourth Phthora are perceived in the same manner - the Third when "the melody of the voice" moves from Barys to Protos or, oppositely, from Protos to Barys; the Fourth when the melody begins from Plagios Tetartos and moves into Deuterios - temporarily or to the very end - or, oppositely, changes from Deuterios to Plagios Tetartos.

These remarks of ours were meant to show that there are sixteen Echoi of chant; as already mentioned again and again.

NOTES:

- \* 1. The four sections which describe the four Phthorai (lines 3-20, 20-32, 32-39, 39-43) have a fixed structure, but a remarkable variation in the diction. Thanks to this *variatio sermonis* it is comparatively easy to follow the line of thought. But even so, there are a few dubious points. Thus, in 12-13 (*περιτρέπεται ἡ καὶ τέλειον καταλήγει*) and in the parallel case (41-42), the distinction seems to be between partial and permanent modulations. But why is this distinction mentioned only in connection with modulation from Barys to Plagios Protos and from Plagios Tetartos to Deuterios? Is this just another case of *variatio sermonis*, the distinction being elsewhere mentally supplied (i.e. at *παρενεχθῆνται* in 5, *ἐκτραπῶμεν* in 23 and at the corresponding single words in 28, 36, and 43) - or does the distinction in 12-13 and 41-42 reflect particular features of these two situations?
- \* 2. If the four sublinear dots after *περιτραπῇ* (41) are intended to denote a lacuna, one inference would be that the person who wrote them had access to another copy of the text; for the wording of P is by no means suspect in itself. There is no corresponding entry in the margins; but the manuscript margins are cut and there is a great triangular hole in the lower margin, so we cannot exclude the possibility that there once was such an entry. If something is really missing in the text, the word, or words which had fallen out may be guessed from the parallel in lines 12-13. In 12 there is an adverbial joined to *καταλήγει*; but since the dots in 41 are placed before the *ἡ*, the modifying element would have belonged to *περιτραπῇ*, not to *καταλήγῃ*. Inspired by the beginning of Chrysaphes's treatise (Tardo, p. 235) I suggest an original *περιτραπῇ δι' ὅλέγου* (or *μερικῶς*?). This would fit to the author's predilection for variation.
- \* 3. In its transmitted form the diagram of §34 cannot be correct; for of its eight columns, the second and eighth do not follow the overall pattern of the arrangement (the two signatures of each column have the distance of a third). Now, a reasonable inference from §35, 1-3 would be that the commentary in §35 follows the diagram from one end to the other. Columns 1-2 ought therefore to be corrected in the light of lines 3-6 and 10-13, and the Protos signature of column 2 should accordingly be corrected into a Barys signature. Similarly, a comparison of columns 7-8 with lines 39-43 suggests that the Barys of column 8 should be corrected into a Deuterios signature. Both errors may be palaeographically explained. But the diagram needs one further adjustment: According to the pattern of arrangement,

columns 3 and 6 ought to be in direct contact - and from §35,22-23 and 26-28 we may infer that the misplaced one is column 6. I fail to see any reason for the misplacing.

The diagram in its corrected shape would then be as follows:

Ἄρ							
Ἄρ							

XII 36. Οἱ οὖν βαθύτερον νοήσαντες  
ἔφησαν καὶ κυρίους εἶναι ἀπὸ<sup>5</sup>  
κυρίων, εἴπερ εἰσὶν οἱ αὐτοὶ,  
ἐνίστε δὲ καὶ κυρίους πλαγίους  
γενέσθαι κατὰ τὸν τοῦ μέλους  
ρύθμόν· ὅπερ ἔστι φανερὸν τοῖς  
5 ἀκριβῶς ἀνιχνεύουσι τὸν 'Αγιο-  
πολίτην.

P: Λ οὖν βαθύτερον νοήσαντες,  
ἔφησαν καὶ κυρίους εἶναι ἀπὸ<sup>5</sup>  
κυρίων εἴπέρ εἰσὶν οἱ αὐτοὶ.  
ἐνίστε δὲ καὶ κυρίας πλαγίους  
γενέσθαι κατὰ τὸν τοῦ μέλους  
ρύθμόν· ὅπερ ἔστι φανερὸν τοῖς  
ἀκριβῶς ἀνιχνεύουσι τὸν ἀγιο-  
πολίτην.

1 litteram O omisit rubricator 4 κυρίας P

#### TRANSLATION:

36. Those who have looked more deeply into these problems have maintained that there are also "Kyrioi from Kyrioi" (if indeed these are the same), and that sometimes Kyrioi become Plagioi during the flow of the melody. This (i.e. the truth of this statement) is obvious to those who make a careful search in the Hagiopolites.

#### NOTES:

- \* 1. I do not understand the implications of the parenthetical remark in line 3.
- \* 2. Κατὰ τὸν τοῦ μέλους ρύθμόν (5-6) is probably nothing but a periphrastic way of saying "en route".
- \* 3. The "Hagiopolites" of the final remark sounds more like the title of a book of chant than that of a treatise on musical theory.

37. Ἐπειδὴ εἰσὶν ἀπὸ κυρίων κύ-  
ριοι καὶ ἀπὸ πλαγίων πλάγιοι,  
δέον εἰπεῖν ὅτι εἰσὶ καὶ μέσοι  
μέσων καὶ φθοραὶ φθορῶν· καὶ  
5 πάλιν κύριοι ἄλλοι καὶ πλάγιοι  
ἄλλοι· καὶ πάλιν κύριοι κυρίων  
καὶ πλάγιοι πλαγίων καὶ φθοραὶ

P: Ἐπειδὴ εἰσὶν ἀπὸ κυρίων κύ-  
ριοι· καὶ ἀπὸ πλαγίων πλάγιοι·  
δέον εἰπεῖν, ὅτι εἰσὶ καὶ μέσοι  
μέσων, καὶ φθοραὶ φθ[ορῶν]ν· καὶ  
πάλιν κύριοι ἄλλοι, καὶ πλάγιοι  
[ἄλλοι]· καὶ πάλιν κύριοι κυρίων,  
καὶ πλάγιοι πλαγίων καὶ φθοραὶ

φθορῶν καὶ μέσοι μέσων. οἵτινες οὕκ εἰσιν ἀναγκαίων - οἶον εὑρι-  
10 σκόμενοι ἐν τινι ὁργάνῳ ἀδό-  
μενοι - ἀλλὰ κατὰ ἀντιστροφὴν  
τῶν πρώτων καὶ ἀναμφιβόλων, ὃν  
τὸ χρήσιμον ἢ ἐν τούτῳ μόνον  
ἔρευνα καὶ σαφήνεια.

φθορῶν· καὶ μέσοι μέσων οἵτινες οὕκ εἰσιν ἀναγκαίων οἶον εὑρι-  
σκόμενοι ἐν τινὶ ὁργάνῳ ἀδό-  
μενοι· ἀλλὰ κατὰ ἀντιστροφὴν  
τῶν πρώτων καὶ ἀναμφιβόλων· ὃν  
τὸ χρήσιμον, ἢ ἐν τούτῳ μόνον  
ευρεύνα καὶ σαφήνεια·

4 et 6 lacunas suppleuit Høeg 9 ἀναγκαῖων] ἀναγκαῖοι vel τῶν ἀναγκαῖων  
legendum? οἶον per compendium scripsit P (οἶτε), où Høeg et Perne  
14 ευρεύνα P

#### TRANSLATION:

37. Since there are "Kyrioi from Kyrioi" and "Plagioi from Plagioi", we have to say that there are also "Mesoi of Mesoi" and "Phthorai of Phthorai". And then other Kyrioi and other Plagioi, and once more "Kyrioi of Kyrioi" and "Plagioi of Plagioi" and "Phthorai of Phthorai" and "Mesoi of Mesoi". These, however, do not belong to the necessary ones, being found (only) when the song is accompanied by some instrument(?), but (they occur) as counterparts (?) to the first and unambiguous ones, the usefulness of which is the only subject-matter of the inquiry and explanations of the present treatise.

#### NOTES:

- \* 1. The text of 8-11 is probably corrupt. Its general meaning may be that the subtleties described in 4fin-8 are not actually found in purely vocal music (i.e. Ecclesiastical), but only when the singing is connected with instrumental music (i.e. folk-music?).
- \* 2. The exact meaning of κατὰ ἀντιστροφὴν (11) eludes me. See below, ad §§41-42.
- \* 3. My rendering of 12fin-14 presupposes that ὃν refers to τῶν πρώτων καὶ ἀναμφιβόλων (12). If the pronoun refers to οἵτινες (8), the comma after ἀναμφιβόλων should be changed into a semicolon. The text would then mean that the subtleties of 4fin-8 are only adduced for theoretical and clarifying purposes. In both cases, the placing of the adverb μόνον is strange.

38. "Ηδη δὲ καὶ διὰ διαγραφῆς P: ήδη δὲ καὶ διὰ τὰ γραφῆς  
τοῦτο σαφές παραστήσομεν. 10v τοῦτο σαφές παραστήσομεν:- |

α	β	γ	δ
α	υ	γ	δ

ଅୟ	ଅୟ	ଅୟ	ଅୟ
ଅୟ	ଅୟ	ଅୟ	ଅୟ

1 διαγραφῆς coniecit Ebbesen, τὰ γραφῆς P (ut videtur), τὸ γραφῆς Perne (sed de υ γρα dubitauit), τ[ῆς γρα]φῆς Høeg

#### TRANSLATION:

38. We shall now make this clear by means of diagrams.

- \* 1. This paragraph serves as an announcement of §§39-44. As long as the diagrams of §§39-44 have not been analysed in details, it is not easy to define the exact function of the two diagrams of §38. It is to be noted, however, that the diagrams of §38 have no heading of their own, corresponding to what we find in the following paragraphs.
- \* 2. Ebbesen's conjecture is not entirely satisfactory, in so far as it is difficult to find a palaeographically convincing explanation for the reading of P.

---

39. Toū ȣ φθιρῶν φθοραὶ ἀνιοῦσαι καὶ κατιοῦσαι.

ῳ	ἢ	ἢ	ἢ	ἢ	ἢ
ἢ	ῳ	ἢ	ἢ	ἢ	ἢ

Toū ȣ φθιρῶν φθοραὶ ἀνιοῦσαι καὶ κατιοῦσαι.

ἢ	ἢ	ῳ	ἢ	ἢ	ἢ
ἢ	ἢ	ἢ	ἢ	ἢ	ἢ

Toū ȣ φθιρῶν φθοραὶ ἀνιοῦσαι καὶ κατιοῦσαι.

ἢ	ἢ	ἢ	ἢ	ἢ	ἢ
ἢ	ῳ	ἢ	ἢ	ἢ	ἢ

10 Toū ȣ φθιρῶν φθοραὶ ἀνιοῦσαι καὶ κατιοῦσαι.

ῳ	ἢ	ἢ	ἢ	ἢ	ἢ
ἢ	ἢ	ἢ	ἢ	ἢ	ἢ

9 ȣ scripsi, ȣ P

NOTES: See below, after §44.

---

40. T[οῦ] ȣ μέσοι μέσων.

ῳ	[ἢ]	[ἢ]
ἢ	ἢ	[ἢ]

Toū ȣ μέσοι μέσων.

ἢ	ἢ	ἢ
ἢ	ἢ	ἢ

Toū ȣ μέσοι μέσων.

ἢ	ῳ	ἢ
ῳ	ῳ	ἢ

10 Toū ȣ μέσοι μέσων.

ἢ	ἢ	ἢ
ἢ	ἢ	ἢ

1 τοū ȣ adhuc vidit Perne 2 ωῳ et 3 ḥῃ ḥῃ vidit Perne

2 ḥῃ et ḥ et 3 ȣ e linn 5-12 conieci

NOTES: See below, after §44.

---

41. Οἱ κατ' ἄντιστροφῶν τῶν πρώτων καὶ ἀναμφιβόλων πλάγιοι κυρίων.

ᾳ	ῃ	ῳ	ῃ
ῃ	ῃ	ῳ	ῃ

NOTES: See below, after §44.

42. Οἱ κατ' ἄντιστροφῶν τῶν πρώτων καὶ ἀναμφιβόλων κύριοι πλαγίων.

ᾳ	ῃ	ῳ	ῃ
ῃ	ῃ	ῳ	ῃ

1 κύριοι πλαγίων conieci, κυρίων πλάγιοι P

NOTES: See below, after §44.

43. Τοῦ ḡ φθοραὶ φθορῶν ἀνιοῦσαι [καὶ κατι]οῦσαι.

ῃ	ῃ	ῃ	ῃ	ῃ	ῃ
ῃ	ῃ	ῃ	ῃ	ῃ	ῃ

11r

Τοῦ δευτέρου φθοραὶ φθορῶν ἀνιοῦσαι καὶ κατιοῦσαι.

ᾳ	ᾳ	ῃ	ῃ	ῃ	ῃ
ῃ	ῃ	ῃ	ῃ	ῃ	ῃ

Τοῦ ῥ φθοραὶ φθορῶν ἀνιοῦσαι καὶ κατιοῦσαι.

ῃ	ῃ	ῃ	ῃ	ῃ	ῃ
ῃ	ῃ	ῃ	ῃ	ῃ	ῃ

10 Τοῦ ᾳ φθοραὶ φθορῶν ἀνιοῦσαι καὶ κατιοῦσαι.

ῃ	ῃ	ᾳ	ῃ	ῃ	ῃ
ῃ	ῃ	ᾳ	ῃ	ῃ	ῃ

1 καὶ κατιοῦσαι adhuc vidit Perne

NOTES: See below, after §44.

44. Τοῦ πρῶτου μέσοι μέσων ἀνιοῦσαι καὶ κατιοῦσαι.

ῃ	ῃ	ῃ
ῃ	ῃ	ῃ

Τοῦ ἄ μέσοι μέσων ἀνιοῦσαι καὶ κατιοῦσαι.

ῃ	ῃ	ῃ[ῃ]
ῃ	ῃ	[ῃ]

Τοῦ ῥ μέσοι μέσων ἀνιοῦσαι καὶ κατιοῦσαι.

ῃ	ῃ	ῃ
ῃ	ῃ	ῃ

10 Τοῦ δὲ μέσοι μέσων ἀντιοῦσαι καὶ κατιοῦσαι.

g	δ	τη
Δ	Δ	τη

5-6 lacunas suppleui

11 g P, an y legendum?

NOTES:

- \* 1. Several of the diagrams in these paragraphs have been physically damaged, but the missing modal signatures can be safely restored from the context.
- \* 2. Together with §38 the diagrams are evidently intended to depict what was said in §37. As already mentioned (notes, p. ) §37 is probably corrupt and partly incomprehensible. The diagrams are not very helpful to clear up the problems, since we do not know how they were to be read and used, and since their headlines contain several obscure details. All which can be done at present is therefore to make a list of the main obscurities - see below, notes 5-7.
- \* 3. Johannes Tzetzes, *Über die altgriechische Musik in der griechischen Kirche*, München 1874, pp. 67-71 combines *verbatim* quotations of §§36-37 with surveys of the modes κατὰ διάτεχνην and κατὰ συναφήν in such a way that it does not become clear that the latter are not taken from §§39-44 of the *Hagiopolites*.
- \* 4. According to their headings, the diagrams deal in turn with the following situations:
  - §39: Phthorai of Phthorai, upwards and downwards, for each of the four authentic modes.
  - §40: Mesoi of Mesoi for each of the four authentic modes.
  - §41: The Plagioi of Kyrioi, "as counterparts to the first and unambiguous ones".
  - §42: The Kyrioi of Plagioi (*but P reads "Plagioi of Kyrioi"!*), "as counterparts to the first and unambiguous ones".
  - §43: Phthorai of Phthorai, upwards and downwards, for each of the four authentic modes.
  - §44: Mesoi of Mesoi for each of the four authentic modes, upwards and downwards.
- NB. The arrangement is not exactly the same as that of §37.
- \* 5. In the headings of §§39, 43, and 44, the expression ἀντιοῦσαι καὶ κατιοῦσαι seems to refer to the relative position of the modes; cf. below, §§51-54 *passim*. The notion is well known from later theory (see, e.g., Tardo pp. 158 and 160-63). But how is this to be understood in connection with the diagrams of §§39-44?
- \* 6. What is the difference between τοῦ πρώτου φθορῶν φθοραὶ etc. in §39 and τοῦ πρώτου φθοραὶ φθορῶν etc. in §43? Similar question as to §§40 and 44.
- \* 7. In §§41 and 42 the headings use expressions similar to §37,9-10. Are the differences to be explained as scribal errors, or are they intentional?
- \* 8. In §44, the feminine participles are strange; for the Middle Modes are always masculine (*ῆχος μέσος πρώτος* etc.). The recurrent abbreviation in the headings of P (*μέ*) offers no help.

XIII 45. Ταῦτα μὲν οὖν παρεκβατικώ-  
τερον εἶπομεν. καὶ ὅσον οὐ καθ'  
εἰριμὸν διδασκαλίας πολὺν τὸν  
λόγιον μηδὲ συνεχῆ ποιησάμενοι,  
5 νῦν πρὸς τοῖς ἀπολειψθεῖσιν τι-  
θέαμεν (ὅθεν ἀναθεν τοῦ καθ'  
εἰριμὸν λέγειν ἐπαυσάμεθα) καὶ  
τὰ ἐπίλοιπα. λέγομεν τοίνυν  
περὶ ἐνηχημάτων καὶ ἐπηχημάτων.  
10 καὶ ἐνηχήματα μέν εἰσιν αἱ τῶν  
ῆχων ἐπιβολαὶ· ἐπηχήματα δὲ ἡ  
προσθήκη τοῦ ἐνηχήματος, καὶ  
κατεισθα καὶ συναρμοζομένη τῷ  
φθόγγῳ τοῦ μέλλοντος προενεχ-  
15 θῆναι εἰς τὴν ψαλμφδίαν - ὡς  
ὅταν μετὰ τὸ ἐνήχημαν λέγεται  
ναὶ λέγε καὶ ναὶ ἄγιε νανὰ καὶ  
ὅσα τούτοις ὅμοια.

4 λογον P, accentum addidit rubricator  
adnot 16 lacunam suppleuit Høeg, vide  
17 νανὰ P (i.e. νανὰ ante correcturam, νανὰ post corr ?), νανὰ Perne  
νανὰ Høeg

#### TRANSLATION:

45: The above was a kind of digression, and we have used much space on matters which do not systematically belong at this place. To the point where we stopped our systematic description we now add what remains. Let us, then, take up Enechemata and Epechemata: Enechemata are the intoning of the Echoi, Epechemata are the addition to the Enechema, descending and being adapted to the melody which is to be sung in the psalmody - e.g. as when we after the Enechema sing *ne lege, neagie nana*, etc.

#### NOTES:

- \* 1. The ὅθεν-clause in 6-7 is awkwardly placed, between τιθέαμεν and its object; I may have misconstrued the meaning.
- \* 2. The terminological problem of ἐπιβολαὶ (11) is still unsettled. In my "Intonation Formulas...." p. 44, I suggested that the earlier expression was ὑποβολή. This, however, does not automatically imply that the reading of P is a mistake of the copyist's. But see above, §§6,13 7,2 and 33,12.
- \* 3. Κατεισθα in 13 is somewhat surprising, in so far as one of the examples adduced is the *Nana* of Plagios Tetartos - where the *Nana* lies on a higher pitch than the intonation word *Neagie*

P: Ταῦτα μὲν οὖν παρεκβατικώ-  
11v τερον εἶπομεν· καὶ ὅσον οὐ καθ'  
εἰριμὸν διδασκαλίας πολὺν τὸν  
λόγιον· μὴ δὲ συνεχῆ ποιησάμενοι,  
νῦν πρὸς τοῖς ἀπολειψθεῖσιν τι-  
θέαμεν· ὅθεν ἀναθεν τοῦ καθ-  
ειριμὸν λέγειν ἐπαυσάμεθα· καὶ  
τὰ ἐπίλοιπα· λέγομεν τοίνυν  
περὶ ἐνηχημάτων καὶ ἐπηχημάτων·  
καὶ ἐνηχήματα μέν εἰσιν, αἱ τῶν  
ῆχων ἐπιβολαὶ· ἐπηχήματα δὲ ἡ  
προσθήκη τοῦ ἐνηχήματος· καὶ  
κατεισθα καὶ συναρμοζομένη· τῷ  
φθόγγῳ τοῦ μέλλοντος, προενεχ-  
θῆνα[ι εἰς τὴν ψ]αλμφδίαν· ὡς  
ὅταν μετὰ τὸ ἐνήχημαν λέ[γεται]  
νανάλεγε· καὶ ναὶ ἄγιενανὰ καὶ  
ὅσα τούτοις ὅμοια·

15 lacunam suppleuit Høeg, vide  
16 lacunam suppleuit Høeg (sed fortasse melius λέγομεν legendum)

( νε α γι ε να να )  
G a G G c c

Has something fallen out, e.g. <ἀντοῦσα ἦ> καὶ κατεύσσα?

- \* 4. Høeg's text in line 15 is not the only way in which the lacuna might be filled out. Equally possible is μετὰ τὴν φαλμαδίαν, as suggested by Ebbesen; this reading would refer to performances where an intonation was added to the ending of the Psalm verse, to facilitate the transition to a following Sticheron. My earlier attempt ("Intonation Formulas...", p.43) can hardly be upheld; I imagined that συναρμοιομένη τῷ φθόγγῳ τοῦ μέλλοντος προενεχθῆναι τὴν φαλμαδίαν could convey the meaning of "being adapted to the sound of the chanter who was going to sing the psalmody".
- \* 5. φθόγγος may be the initial sound of the melody, or a more vague expression.
- \* 6. For ἐνήχημαν (16), see §14, note 3.

46. Ἐπεὶ δὲ καὶ κοινωνίαν οἱ  
ῆχοι κέκτηνται πρὸς ἀλλήλους  
θαυμαστὴν ἐν ταῖς ὑποβολαῖς  
τῶν φθόγγων αὔτῶν, διὰ τοῦτο  
5 καὶ τὰ αὐτὰ δισωποῦσιντ ἄπαν-  
τες ἐν ταῖς ἑαυτῶν ἐκφωνήσεσιν.  
ὅτι δὲ τοῦτο οὕτως ἔχει, δῆλον  
ἐντεῦθεν\*.

P: Ἐπεὶ δὲ καὶ κοινωνίαν οἱ  
ῆχοι κέκτηνται πρὸς ἀλλήλους  
θαυμαστὴν ἐν ταῖς ὑποβολαῖς  
τῶν φθόγγων αὔτῶν\* διατοῦτο  
καὶ τὰ αὐτὰ δισωποῦσιν ἄπαν-  
τες ἐν ταῖς ἑαυτῶν ἐκφωνήσεσιν\*  
ὅτι δὲ τοῦτο οὕτως ἔχει, δῆλον  
ἐντεῦθεν\*

#### TRANSLATION:

46. The Echoi have also a marvellous kinship to each other "in the Hypobolai of their Phthongoi". This is the reason why all of them ... the same "in their Ekyphoneseis". The following shows that this is really so. The following shows that this is really so.

#### NOTES:

- \* 1. The θαυμαστὴ κοινωνία of the Echoi is shown in §§47-54, cf. the concluding remark at the beginning of §55. In §§52-54 (and 29) συγγένεια is used as a synonym.
- \* 2. I hesitate to translate ὑποβολαῖ, φθόγγος, and ἐκφώνησις, the more so since the crux in line 5 makes it impossible to get a clear idea of the line of thought in this paragraph.
- \* 3. If the text were correct in 4-6, ἄπαντες ought to be singers, not Echoi; for δισωπεῖν is usually said of persons.

47. Ο πρῶτος ἕχος πέντε φωνὰς  
ἔχει ἐνήχημα. ἀπὸ γοῦν τῆς ὑπο-  
ρροῆς τῆς δευτέρας αὐτοῦ φωνῆς 12r  
P: ὁ πρῶτος ἕχος πέντε φωνὰς  
ἔχει ἐνήχημα\* ἀπὸ γοῦν τῆς ὑπο-  
ρροῆς τῆς δευτέρας [τ]ῆς δευτέρας | αὐτοῦ φωνῆς,

αὶ ἐφεξῆς τρεῖς φωναὶ συναπτό-  
5 μεναι αὐτῇ - ἕγουν τῇ δευτέρᾳ  
- τὸν ὑφειμένον πρῶτον ἀποτελ-  
οῦσιν ἥχον, ὃν λα' λέγομεν· ἡ  
δὲ τρίτη αὐτοῦ φωνὴ συνεπιλαμ-  
βανομένη καὶ τὰς ἐφεξῆς δύο  
10 τὸν δεύτερον ἥχον ἀποτελεῖ, ὡς  
εἶναι τὸν πρῶτον ἥχον κατά τε  
τὸν τρόπον γεννητὸν τοῦ δευτέ-  
ρου ἥχου καὶ τοῦ λα'· ἡ γὰρ μέ-  
ση αὐτῶν φωνὴ κοινὴ ἔστιν ἀμφο-  
15 τέροις.

5 αὐτῇ Ebbesen, αὕτη P, ταύτη olim conieci  
sub ὃν posuit altera manus) 10-11 ὅστε εἶναι olim conieci, ὡς ἕνα P  
11 τε P, an τοῦτον legendum? 12 γεννητὸν conieci, γεννητὸς P 14 αὐτοῦ  
legendum?

#### TRANSLATION:

47. The First Echos has five steps as Enechema (a *G F E D*). The three steps which follow in downward stepwise movement upon the second of these (*F E D*, following after *G*) constitute the inferior First Echos - the one which we call Plagios Protos. The third of its steps (*F*), when combined with the following two (*G a*), constitutes the Second Echos (*F G a*). The First Echos is thus a child of Deuterios and Plagios Protos, their (or its) middle step being common to both.

#### Notes:

- \* 1. For §§47-50, see my "Intonation Formulas....", pp.40-41. As pointed out (*ibid.*p.43) ἥχος at times seems to refer to the Enechema rather than to the mode; in the present paragraph, only the occurrence in line 1 must refer to the mode.
- \* 2. For the derivation of Plagios Protos (2-7), cf. §6,4-6.
- \* 3. The description of the Deuterios ἥχος (i.e. intonation) in 7-10 and 13-15 is more problematic than I realized twenty years ago. At the time I was convinced that the intonation of Deuterios (in its "normal" position) was *b a G*, here transposed to a *G F*. But since the exclusively diatonic character of the Deuterios seems now to be far less likely than it used to be, we cannot exclude the possibility that the three tones mentioned in 8-9 are *F G-flat a* (with intervals as *E F G-sharp*, the lower trichord of the chromatic Deuterios).
- \* 4. Ἡ μέση φωνὴ (13-14) must be *F*, correctly said to be κοινὴ ἀμφοτέροις. But this note can only be called "their middle step", if "middle" refers to the borderline between these two modes or intonations. Evidently, then, either the author has made a tautology or the scribe an error; in the latter case, αὐτῶν should be changed into αὐτοῦ (= τοῦ πρῶτου ἥχου).

αὶ ἐφεξῆς τρεῖς φωναὶ συναπτό-  
μεναι, αὕτη ἕγουν τῇ δευτέρᾳ  
τὸν ὑφειμένον πρῶτον ἀποτελ-  
οῦσιν ἥχον· ὃν λα' λέγομεν· ἡ  
δὲ τρίτη αὐτοῦ φωνὴ συνεπιλαμ-  
βανομένη καὶ τὰς ἐφεξῆς δύο,  
τὸν δεύτερον ἥχον ἀποτελεῖ· ὡς  
ἕνα τὸν πρῶτον ἥχον κατά τε  
τὸν τρόπον, γεννητὸς τοῦ δευτέ-  
ρου ἥχου καὶ τοῦ λα'· ἡ γὰρ μέ-  
ση αὐτῶν φωνὴ, κοινὴ ἔστιν ἀμφο-  
τέροις.

7 λα' in rasura P (crucem

10-11 ὅστε εἶναι olim conieci, ὡς ἕνα P

12 γεννητὸν conieci, γεννητὸς P 14 αὐτοῦ  
legendum?

48. Ἐκ πέντε φωνῶν τοίνυν ὁ πρῶτος ἥχος ἔστιν. ὁ δὲ δεύτερος ἥχος ἔχει φωνὰς τρεῖς· καὶ ἐκ τῆς δευτέρας αὐτοῦ φωνῆς δέ 5 πλαγιεύτερος ἥχος ἀπογεννᾶται κάκεῖθεν συνίσταται, πλὴν μετὰ τοῦ ἐνηχήματος. εἰ μὲν γάρ οὕτως ἐνηχηθῇ, πά' ἥχος εἰσάγεται, διότι πολλὴν κοινωνίαν 10 ἔχουσι πρὸς ἀλλήλους ὁ πά' καὶ ὁ πβ' ὁσπερ καὶ ὁ πρῶτος μετὰ τοῦ δευτέρου. ὡς ἐπὶ τὸ πλεῖστον δὲ τὰ πληρώματα καὶ αἱ ἀποθέσεις τοῦ δευτέρου ἥχου 15 εἰς ἥχον πβ' ἀποδίδονται.

5 πλάγιει δεύτερος P, fortasse melius in πλαγιεύτερος corrigendum (cf. § 35 passim) ἀποτίκτεται olim conieci sed γ видит Høeg et vestigia litterarum γε imago codicis praebet (ε postea plane deperditum est), unde ἀπογεννᾶται legendum 7-9 vide annotationem

#### TRANSLATION:

48. The First Echos, then, consists of five notes. The Second Echos has three notes (viz. as *Enechema: b a G*). From the second of these the Plagios Deutereros is born, and it is from this note (i.e. from *a*) that it is organized, but only in connection with its appropriate *Enechema*; for if it has no such *Enechema*, this pitch will lead to Plagios Protos - since Plagios Protos and Plagios Deutereros have much in common, as have also Protos and Deutereros.

The cadences and endings of the Second Echos are usually those of Plagios Deutereros.

#### NOTES:

- \* 1. The Epsilon of *ἐνηχήματος* (7) has the shape used in the ligature *εν*; otherwise it would have been tempting to read *ἐπηχήματος* and take this to refer to the *Nenano* (on *a*). If the transmitted text is sound, it would imply that the author speaks of a "transposed" Plagios Deutereros intonation (*a b-flat c-sharp b-flat a?*). The unspecified *τοῦ ἐνηχήματος* is to be observed; did the model MS perhaps read *μετὰ τοῦ ἔαυτοῦ ἐνηχήματος*?
- \* 2. In 7-9 a negation seems to be missing. Possible reading would be *εὐ μὴ γάρ οὕτως ἐνηχηθῇ* (but this word order is strange; we would expect *εὐ γάρ μὴ*) or *εὐ μεν γάρ <ούχ> οὕτως ἐνηχηθῇ*.
- \* 3. For lines 12-15, see §6,9-11.

P: ἐκ πέντε φωνῶν τοίνυν ὁ πρῶτος ἥχος ἔστιν· ὁ δὲ δεύτερος ἥχος ἔχει φωνὰς τρεῖς· καὶ ἐκ τῆς δευτέρας αὐτοῦ φωνῆς, δέ 5 πλάγιει δεύτερος ἥχος ἀπογεννᾶται κάκεῖθεν συνίσταται· πλὴν μετὰ τοῦ ἐνηχήματος εὐ μὲν γάρ οὕτως ἐνηχηθῇ· πά' ἥχος εἰσάγεται· διότι πολλὴν κοινωνίαν ἔχουσι πρὸς ἀλλήλους ὁ πβ' καὶ ὁ πβ' ὁσπερ καὶ ὁ πρῶτος μετὰ τοῦ δευτέρου· ὡς ἐπὶ τὸ πλεῖστον δὲ τὰ πληρώματα καὶ αἱ ἀποθέσεις τοῦ δευτέρου ἥχου, εἰς ἥχον πβ' ἀποδίδονται.

49. 'Ο δὲ τρίτος ἔξι φωνὰς ἔχει, καὶ ἐκ τῆς τελευταίας αὐτοῦ φωνῆς ὁ βαρύς ἀπάρχεται. P: ὁ δὲ τρίτος ἔξι φωνὰς ἔχει καὶ ἐκ τῆς τελευταὶ[ας] αὐτοῦ φωνῆς, ὁ βαρύς ἀπάρχεται

## TRANSLATION:

49. The Third Echos "has six notes", and the Barys takes its beginning from the last of these.

## NOTES:

- \* 1. I have formerly suggested that this was a description of *ambitus* rather than of an intonation formula ("Intonation Formulas...", p. 41). However, if one considers the author's predilection for *variatio sermonis*, there can be little doubt that the beginning of §49 should be understood like those of §§47, 48, and 50, i.e. as references to *Enechemata*.
- \* 2. The αὐτοῦ (2) must refer to the ἥχος - in the sense of *Enechema*. How Barys can be said to "begin from the last note of the Tritos *Enechema*" is still unclear to me.

50. 'Ο δὲ τέταρτος ἐκ πέντε φωνῶν ἔχει τὴν σύστασιν' ἔξι δὲ τῆς πρώτης καὶ ἐπιτεταμένης ἀφαιρεθείσης ὁ μέσος τέταρτος 5 γίνεται· μέσος δὲ λέγεται διὰ τὸ ἐν μεταχυμένῳ εἶναι. καὶ ὡς μεσιτεύει ἐν τῷ τετάρτῳ ἥχῳ καὶ τῷ πέδῳ ὁ μέσος τέταρτος, οὕτω καὶ ἐν τοῖς λοιποῖς. P: | ὁ δὲ τέταρτος\* ἐκ πέντε φωνῶν ἔχει τὴν σύστασιν\* ἔξι δὲ τῆς πρώτης καὶ ἐπιτετραμένης ἀφαιρεθείσης, ὁ μέσος τέταρτος γίνεται· μέσος δὲ λέγεται, διὰ τὸ ἐν μετεχαλώ εἶναι· καὶ ὡς μεσιτεύει ἐν τῷ τετάρτῳ ἥχῳ· καὶ τῷ πέδῳ· ὁ μέσος τέταρτος, οὕτω καὶ ἐν τοῖς λοιποῖς·.

3 ἐπιτεταμένης conieci, ἐπιτετραμένης P 6 μεταχυμένῳ coniecit Ebbesen, μετεχαλῷ P

## TRANSLATION:

50. The Tetartos consists of five notes. If the first and highest of these is removed, the result is Mesos Tetartos - called Mesos because it is placed in between. Parallels are also found in the other modes, corresponding to the place of Mesos Tetartos between Tetartos and Plagios Tetartos.

## NOTES:

- \* 1. 'Ο τέταρτος (scil. ἥχος) must be the *Enechema* (d c b a G).
- \* 2. 'Ἐπιτεταμένη (3) seems to be a *terminus technicus* of Ancient musical theory.

51. "Ἐχουσι τοίνυν καὶ οἱ τέσσαρεις κύριοι κοινωνίαν πρὸς P: ἔχουσι τοίνυν καὶ οἱ τέσσαρεις κύριοι, κοινωνίαν πρὸς

ἀλλήλους ἀπὸ τῶν πλαγίων αὔτῶν,  
ἀλλὰ δὴ καὶ ἀπὸ τῶν φθορῶν αύ-  
5 τῶν. μέαν γὰρ φωνὴν ἀπὸ τοῦ  
πρώτου ἀναβιβάζοντες, τὸν κύ-  
ριον δεύτερον εὔρισκομεν· καὶ  
πάλιν ἀπὸ τοῦ δευτέρου μέαν φω-  
νὴν καταβιβάζοντες, τὸν λίαν εύ-  
10 ρισκομεν. οὕτως τοίνυν ἔστιν  
εὔρεῖν καὶ ἐπὶ τῶν ἄλλων τριῶν  
ἥχων.

3 οὐ μόνον ante ἀπὸ excidisse suspicatus est H̄eg 7 lacunam suppleui  
9 lacunam suppleui

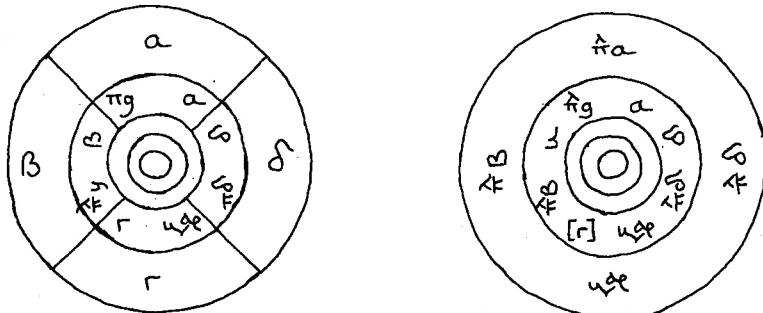
## TRANSLATION:

51. Furthermore, the four authentic Echoi are also mutually akin from their Plagals - and from their Phthorai as well. For if from the Protos we ascend one step, we find the authentic Deuteros; if we descend one step from the Deuteros, we find the Plagios Protos. Concerning the three other Echoi the situation is the same.

## NOTES:

- \* 1. The καὶ in line 1 must be construed with ἀπὸ τῶν πλαγίων αὔτῶν.
- \* 2. In lines 6 and 9 ἀναβιβάζοντες and καταβιβάζοντες are used instead of the simple, non-causal forms.

## XIV 52.



“Οτε τοίνυν μέλλεις δεικνύειν  
ἀπὸ τῶν κυρίων πρὸς τοὺς κυ-  
ρίους τὴν συγγένειαν, κατ’εύ-  
θεῖαν ἀνέλθῃς, πρῶτον καὶ δεύ-

τις ἀλλήλους, ἀπὸ τῶν πλαγίων αὔτῶν,  
ἀλλὰ δὴ καὶ ἀπὸ τῶν φθορῶν αύ-  
τῶν· μέαν γὰρ φωνὴν ἀπὸ τοῦ  
πρώτου ἀναβιβάζοντες, τὸν κύ-  
ριον δεύτερον εὔρισκομεν· [καὶ]  
πάλιν ἀπὸ τοῦ δευτέρου μέαν φω-  
νὴν καταβιβάζοντες, τὸν λίαν εύ-  
ρισκομεν· οὕτως τοίνυν ἔστιν  
εὔρεῖν καὶ ἐπὶ τῶν ἄλλων τριῶν  
ἥχων·

P: ὅτε τοίνυν μέλλεις δεικνύειν  
ἀπὸ τῶν κυρίων πρὸς τοὺς κύ-  
ρους:- | Τὴν συγγένειαν, κατ’εύ-  
θεῖαν ἀνέλθεις· πρῶτον καὶ δεύ-

5 τερον καὶ τρίτον καὶ τέταρτον  
ἀριθμῶν· ὅτε δὲ τὴν αὔτην συγ-  
γένειαν τῶν αὐτῶν ἥχων μέλλεις  
δεικνύειν οὐκ ἀπ' αὐτῶν τῶν κυ-  
ρίων ἀλλ' ἀπὸ τῶν πλαγίων αὐτῶν,  
10 τότε τὸ ἀνάπαλιν ποιήσεις, τοὺς  
κυρίους ἀπὸ τοῦ τετάρτου ἔως  
τοῦ πρώτου κατερχόμενος, τέταρ-  
τον καὶ τρίτον καὶ δεύτερον καὶ  
πρῶτον ἀριθμῶν.

τερον καὶ τρίτον, καὶ τέταρτον  
ἀριθμόν· ὅτε δὲ τὴν αὔτην συγ-  
γένειαν τῶν αὐτῶν ἥχων μέλλεις  
δεικνύειν· οὐκ ἀπ' αὐτῶν τῶν κυ-  
ρίων, ἀλλ' ἀπὸ τῶν πλαγίων αὐτῶν,  
τότε τὸ ἀνάπαλιν ποιήσεις τοὺς  
κυρίους ἀπὸ τοῦ τετάρτου ἔως  
τοῦ πρώτου κατερχόμενος· τέταρ-  
τον καὶ τρίτον καὶ δεύτερον καὶ  
πρῶτον ἀριθμόν·

2-3 post κυρίους initium paragraphi indicat P (distinctione plena et T  
rubro colore depincta) 4 ἀνέλθης dubitanter scripsi, ἀνέλθεις P  
6 ἀριθμῶν scripsi, ἀριθμόν P 10 ποιήσεις P 13 post τρίτον iterum  
καὶ τρίτον habet P 14 ἀριθμόν P

#### TRANSLATION:

52. When you want to demonstrate the connection between the authentic Echoi, using these modes themselves for the demonstration, "go upwards in a straight line" while counting Protos, Deuterios, Tritos, Tetartos. But when you want to demonstrate the same connection between these Echoi - but using now not the authentic ones for the demonstration, but their Plagals - then do the opposite, counting the authentic Echoi in descent from the Fourth to the First, i.e. Tetartos, Tritos, Deuterios, Protos.

#### NOTES:

- \* 1. The two diagrams are written in the lower margin, immediately after τρὸς τοὺς κυρίους §52,2-3). There is no particular reason why the diagrams should have had exactly this position in the model of P; I have therefore placed them at the beginning of §52, since they seem to be meant as a basis for the developments of §§52-54. The two signatures at the lowest part of the diagrams (r and ψ) are now lost, but can be seen on old photographs.
- \* 2. The absurd lay-out in P (see app.crit. ad 2-3) would be more pardonable if the model MS were following the well-known device of marking the start of a section by means of letting the first full line of the new section begin with an enlarged (or coloured) letter protruding into the left hand margin. According to this hypothetical explanation, the beginning of §52 (ὅτε τοίνυν - κυρίους) was less than one complete line, and the model MS would have had either long lines and small letters or many abbreviations (or both).
- \* 3. If "going upwards in a straight line" (3-4) is to be taken literally, it is somewhat surprising to find κατ' εὐθεῖαν in connection with the circular movements dictated by the diagram! The same expression is used in §53,10-11.
- \* 4. My emendations of ἀνέλθεις and ποιήσεις (4 and 10) are not absolutely necessary. The choice between a rare usage of aorist subjunctive (as an imperative substitute) and a "future" form ἀνέλθεις may have been complete-

ly irrelevant both to the author and to the scribe of our MS. The pronunciation was the same, and there was no doubt as to the intended meaning.

\* 5. Τοὺς κυρίους (10-11) is necessary, because the reader might otherwise be led to think that τὸ ἀνάπαλιν ποιήσης involved that it was now the Plagal Echoi which should be used in the "counting".

53. Καὶ πάλιν, ὅτε τὴν συγγένει - P: καὶ πάλιν ὅτε τὴν συγγένει -  
 αν τῶν πλαγίων πρὸς τοὺς πλαγί-  
 ους ἀπὸ τῶν πλαγίων ποιῶμεν,  
 ἀπὸ τὸν λα' ἀρχόμενοι καὶ κατ-  
 5 ερχόμενοι τὸν πδ' βαρ πβ' καὶ  
 λα' δείξωμεν αὐτῶν τὴν συγγέ-  
 νειαν. ὅταν δὲ τὴν αὐτὴν τῶν  
 αὐτῶν ἕχων συγγένειαν ποιώμεθα,  
 οὐκ ἀπ' αὐτῶν τῶν πλαγίων ἀλλ'  
 10 ἀπὸ τῶν κυρίων αὐτῶν, κατ' εύ-  
 θεῖαν ἔλθωμεν, λα' πβ' <βαρ>  
 καὶ πδ' ἀριθμοῦντες, ἀποδιδόν-  
 τες<ς δὲ> ἐκάστῳ τῶν πλαγίων τὸν  
 κύριον ἕχον αὐτοῦ.

αν τῶν πλαγίων πρὸς τοὺς πλαγί-  
 ους ἀπὸ τῶν πλαγίων ποιῶμεν,  
 ἀπὸ τὸν λα' ἀρχόμενοι, καὶ κατ-  
 ερχόμενοι τὸν πδ' αρχέ λα' καὶ  
 λα' δείξωμεν αὐτῶν τὴν [συγγέ-]  
 νειαν ὅταν δὲ τὴν αὐτὴν τῶν  
 αὐτῶν ἕχων συγγένειαν ποιώμεθα,  
 οὐκ ἀπ' αὐτῶν τῶν πλαγίων ἀλλ'  
 ἀπὸ τῶν κυρίων αὐτῶν κατ' εύ-  
 θεῖαν ἔλθωμεν. λα' πβ' . λα'  
 καὶ πδ' ἀριθμοῦντες, ἀποδιδόν-  
 τες ἐκάστῳ τῶν πλαγίων τὸν  
 κύριον ἕχον αὐτοῦ.

6-7 συγγένειαν restitui 8 συγγενειαν adhuc vidit Perne 11 et 13  
 supplui

#### TRANSLATION:

53. And again, when we establish the connection between the Plagal Echoi, using the Plagals for this purpose, we begin from Plagios Protos and move downwards - Plagios Tetartos, Barys, Plagios Deuterοs, and Plagios Protos - in the demonstration. But when we are to demonstrate the same connection, not from the Plagal Echoi themselves but from their authentic counterparts, we "go in a straight line", counting Plagios Protos, Plagios Deuterοs, Barys, and Plagios Tetartos - but assigning to each of the Plagal its authentic Echos.

#### NOTES:

\* 1. "Ὅτε for ὅταν in 1, ἀπὸ + acc. in 4, δείξωμεν for δείξομεν in 6, ποιώμεθα in 8 (but ποιῶμεν in 3) is a surprising number of suspect forms. I have left the text as it is, fearing that adjustments would be "corrections of the idiom of the author". One more place where the soundness of the text may be doubted is the construction of κατερχόμενοι in 4-5. Cf. also §52, note 4.

\* 2. The meaning of 10-14 seems to be that in this upwards movement the authentic Echemata (ἕχου) are used to denote the places of the Plagal modes. If this interpretation is correct, one might have expected a parallel remark at the end of §52.

54. Καὶ αὕθις τὴν συγγένειαν τῶν κυρίων ἦχων ἀπὸ τῶν πλαγίων ποιούμενοι λέγομεν ὅτι οὐ διαφέρει ὁ πᾶς τοῦ α' κατὰ τὸν 5 τοῦ μέλους δύσθμόν· πολλάκις γάρ εὑρίσκεται πρῶτος ἀπὸ μέλους· εἰ δέ ἔστιν ἡ φωνὴ κατεισθία, πλάγιος πρῶτος· πάλιν εὑρίσκεται ἀπὸ μέλους πᾶς· εἰ 10 δέ ἔστιν ἡ φωνὴ ἀνυισθία, ἔστι πρῶτος.

2 ἦχων restitui, ἦ P

TRANSLATION:

54. Once more a remark on the connection between the authentic Echoi as established from the Plagals: There is no difference between Plagios Protos and Protos from a melodic point of view. For many times the melodic movement is Protos; but if we have to do with a descending step, this is to be defined as Plagios Protos. And again, an ascending step will be Protos, although its melodic context is Plagios Protos.

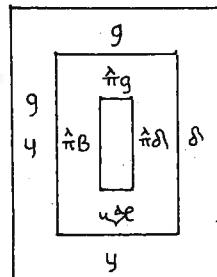
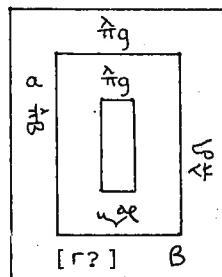
NOTES:

- \* 1. I have paraphrased rather than translated, to make the line of thought a little more clear.
- \* 2. 'Ο τοῦ μέλους δύσθμός is probably a stylistic variation for τὸ μέλος. In §§52-54, the author's usual predilection for *variatio sermonis* is seen again and again.

55. Ἀλλὰ ταῦτα μὲν ἀρκεῖν μοι δοκοῦσιν, ὅσον πρὸς ἀπόδειξιν τῆς τῶν ἦχων θαυμαστῆς κοινωνίας. εἰ δέ τις καὶ ἀκριβέστερον 5 περὶ τούτων ἔξετάσει, μυρίους ἀν εὑρήσῃ τρόπους τὴν τῶν ἦχων κοινωνίαν συνβάλλοντας·

P: καὶ αὕθις τὴν συγγένειαν τῶν κυρίων· ἦ· ἀπὸ τῶν πλαγίων ποιούμενοι λέγομεν ὅτι οὐ διαφέρει ὁ πᾶς τοῦ ἦχος κατὰ τὸν τοῦ μέλους δύσθμόν· πολλάκις 13v γάρ εὑρίσκεται πρῶτος ἀπὸ μέλους· εἰ δὲ ἔστιν ἡ φωνὴ κατεισθία πλάγιος πρῶτος· πάλιν εὑρίσκεται ἀπὸ μέλους πᾶς· εἰ δὲ ἔστιν ἡ φωνὴ ἀνυισθία, ἔστι πρῶτος·

P: ἀλλὰ ταῦτα μὲν ἀρκεῖν μοι δοκοῦσιν, ὅσον πρὸς ἀπόδειξιν τῆς τῶν ἦχων θαυμαστῆς κοινωνίας· εἰ δέ τις καὶ ἀκριβέστερον περὶ τούτων ἔξετάσει μυρίους ἀν εὑρίσῃ τρόπους τὴν τῶν ἦχων κοινωνίαν συμβάλλοντας



ούσπερ τέως παρήκαμεν, οὐα μὴ πολυλογεῖν τισὶ δόξωμεν. ἔξεστι 15 δὲ τοῖς φιλομαθέσιν, δόηγηθεῖσιν ἐξ ὧν ἐγεγράφειμεν. καὶ ὅνς παρελίπομεν ἐφευρεῖν τρόπους, εἶπερ ἐμπόνως τούτοις ἐνασχοληθεῖεν.

ούσπερ τέως παρήκαμεν. οὐα μὴ πολυλογεῖν τισὶ δόξωμεν. ἔξεστι δὲ τοῖς φιλομαθέσιν δόηγηθήσιν ἐξ ὧν ἐγεγράφειμεν. καὶ οὖς παρελείπομεν ἐφευρεῖν τρόπους. εἶπερ ἐμπόνως τούτους ἐνασχοληθεῖεν:-

8-12 vide annotationem nostram  
Perne 12. γ adhuc vidit Perne (γ) β] ρ  
15, δόηγηθεῖσιν Ebbesen, δόηγηθήσιν P 17 παρελείπομεν P  
18 τούτους Ebbesen, τούτους P

#### TRANSLATION:

55. The above, I suppose, must be enough to demonstrate the marvellous kinship of the Echoi. However, if somebody makes an even more accurate scrutiny of these matters, he will find thousands of features which prove the kinship. At present I have disregarded these, to avoid being criticized for loquacity. But those who are eager after knowledge may be guided by what I have written to find also the features which I have passed by, provided they really do engage themselves in this troublesome work.

#### NOTES:

- \* 1. For the time being I have refrained from giving any precise translation of τρόποι in 6 and συμβάλλω in 7.
- \* 2. The two diagrams are written in the left and right margin respectively, and the text from μυρτοῖς in 5 to τισὶ in 14 has been written in very short lines, centred at the middle of the page so that the two diagrams do not protrude into the margins. The lay-out may have been taken over from the model MS.
- \* 3. In line 12, Perne apparently could still read both signatures of the left diagram. According to him, the first of these was a Tritos signature (γ); but since his rendering of the second signature (ρ) bears no resemblance whatsoever to the clear β still preserved in P, I hesitate to believe his accuracy as far as the γ is concerned.
- \* 4. Anyhow, I have no idea as to how the two diagrams are to be understood.

XV 56. Διαστημάτων εἰσὶ διαφοραὶ πέντε· πρώτη μέν, καθ' ἥν μεγέθει διαφέρει· δευτέρα δέ, καθ' ἥν τὰ μὲν σύμφωνα < > τρίτη 5 δέ, καθ' ἥν τὰ μέν ἔστι σύνθετα τὰ δὲ ἀσύνθετα· τετάρτη δέ, καθ' 14r τὰ δὲ ἀσύνθετα· τετάρτη δέ, καθ' ἥν γένη· πέμπτη, καθ' ἥν τὰ μέν ἔστι ρήτα τὰ δὲ ἄλογα.

= Anon § 58 (MSS:ABC)

P: Τῶν διαστημάτων εἰσὶ φωναὶ πέντε· πρώτη μὲν καθ' ἥν μεγέθη διαφέρει· δεύτερον δὲ καθ' ἥν τὰ μὲν σύμφωνα· τρίτη δὲ, καθ' ἥν τὰ μέν ἔστι σύνθετα· τὰ δὲ ἀσύνθετα· τετάρτη δὲ, καθ' ἥν γένη· πέμπτη δὲ καθ' ἥν τὰ μέν ἔστι ρήτα, τὰ δὲ, ἄλογα

1 Τῶν διαστημάτων P διαφοραὶ] φωναὶ P 2-3 μεγέθη P 3 δεύτερον P  
4 σύμφωνα] + τὰ δὲ διάφωνα Anon 5 εἰσὶ S 7 γένει Anon πέμπτη δὲ P  
8 ρήματα ante corr S

NOTES:

- \* 1. Here begins the Ancient part of P. §§56-89 contain *Anonymous III Bellermanni*, §§33-69 init., but in a confused order and without §§45fin.-49. The same text, but in correct order, is preserved in S, 92r-95v, including the paragraphs which are missing in P (Anon §§45-49). For details, see my article in *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, Bd.125, quoted above (p. 2 note 2).
- \* 2. In P, §56 begins near the bottom of fol.13v, with a red initial letter. The lay-out does not indicate that we have to do with a text which has nothing whatsoever to do with the preceding. In S, the text of *Anonymous III*, §§ 33-69 begins on the top of 92r, with several lines in blank set aside for a heading.
- \* 3. For §§50-89, the left-hand columns give the corrupt text of the common ancestor of P and S, as far as this can be reconstructed. All deviations from Najock's text are underlined. The underlinings in the right-hand columns mark off the cases where P deviates from the reconstructed text, i.e. the private readings of P.

57. Τῶν συμφώνων διαστημάτων - όκτὼ ὅντων, ἀφ' ὃν τριῶν ἐλαχίστων - τὸ μὲν διὰ τεσσάρων διαιρεῖται εἰς σχήματα τρία, 5 τὸ δὲ διὰ πέντε εἰς τέσσαρα, τὸ δὲ διὰ πασῶν εἰς ἑπτά.  
= Anon § 59 (MSS:ABC)

P: τῶν συμφώνων διαστημάτων, όκτὼ ὅντων, ἀφ' ὃν τριῶν ἐλαχίστων τὸ μὲν διαιτεσσάρων, διαιρεῖται εἰς σχήματα γῆτὸ δὲ διαιπέντε εἰς δ'. τὸ δὲ διαιπασῶν, εἰς ἑπτά·

58. Τούτων δὲ τῶν < > τεσσάρων σχημάτων πρῶτον μέν, οὕτω

P: τούτων δὲ τῶν τεσσάρων σχημάτων, πρῶτον μέν, οὕτω

τὸ πυκνὸν ἐπὶ τὸ βαρὺ ἀπὸ ὑπάτης μέσων ἐπὶ μέσον\* δεύτερον  
5 δέ, οὖ αὶ διέσεις ἐφ' ἐκάτερα τοῦ διὰ τόνου ἀπὸ ὑπάτης μέσων ἐπὶ τρίτην συνημμένων· τούτου ἦ πρῶτον τὸ ἡμιτόνιον ἢ τέλος  
10 ἥ μέσον. ἔστιν οὖν τὸ πυκνὸν ἐπὶ τὸ ὄξυ, ἀπὸ λιχανοῦ μέσων ἐναρμονίου ἐπὶ παρανήτην συνημμένων ἐναρμόνιον.

= Anon § 60 (MSS:ABC)

τὸ πυκνὸν ἐπὶ τὸ βαρὺ ἀπὸ ὑπάτης μέσης ἐπὶ μέσον\* δεύτερον δέ, οὖ αὶ διέφερεν τοῦ διατόνου· ἀπὸ ὑπάτης μέσον ἐπὶ τρίτην\* συνημμένων τούτου ἦ πρῶτον τὸ ἡμιτόνιον, ἢ τέλος  
15 ἥ μέσον\* ἔστιν οὖν τὸ πυκνὸν ἐπὶ τὸ ὄξυ\* <

1-2 τούτων δὲ τῶν τεσσάρων σχημάτων Pet S (om δέ), τοῦ δὲ τῶν διὰ τεσσάρων σχήματα AB τοῦ δὲ διὰ τεσσάρων σχήματα C, τῶν δὲ τοῦ διὰ τεσσάρων σχημάτων Anon (Bellermann) 2 οὖ] οὖν S 4 μέσων Anon, μέσον S, μέσης P μέσον PS, μέσην Anon 5 διέσεις Anon, διάρσεις S, δι (sic) P ἐκάτερου P 6 παρυπάτης Anon μέσον P 7-8 τούτου ἥ PS, τρίτον δὲ οὖ Anon 8 πρῶτην S 10 ἀπὸ λιχανοῦ usque ad § 61,3 ἐπὶ τὸ ὄξυ om P μέσον S 11 ἐναρμόνιον S πανήτην S ante corr, παρανήτην post corr 11-12 συνημμένον S

#### NOTES:

- \* 1. In line 5 the readings of P and S can be explained in different ways. Either διέσεις was difficult to read in their common ancestor; P gave up, whereas S (or rather the model of S, cf. Introduction p. ) produced a nonsensical διάρσεις. Or, if διάρσεις was already in the common ancestor, we might see the reading of P as being due to a prudent reluctance to copy a meaningless word.
- \* 2. The omission in P of lines 10 sqq. is due to *homoeoteleuton* (ἐπὶ τὸ ὄξυ).

59. Τῶν δὲ τοῦ διὰ πέντε σχημάτων πρῶτον μέν ἔστιν οὖ πρῶτος ὁ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ ὑπάτης μέσων ἐπὶ παραμέσην.  
5 δεύτερον δὲ οὖ δεύτερος ὁ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ παρυπάτης μέσων ἐπὶ τρίτην διεζευγμένων· τρίτον δὲ οὖ < > δ τόνος ἐπὶ τὸ ὄξυ, ἀπὸ λιχανοῦ τρίτον ἐν-  
10 αρμόνιον ἥ χρωματικῆς ἥ διατό-

> ἀ[πὸ  
]πάτης μέσων, ἐπὶ παραμέσην\* δεύτερον δὲ οὖ δεύτερος ὁ τόνος ἐπὶ τὸ ὄξυ ἀπὸ παρυπάτης μέσων, ἐπὶ τρίτην διεζευγμένων\* τρίτος δὲ οὖ ὁ τόνος ἐπὶ τὸ ὄξυ ἀπὸ λιχάνου τρίτον ἐναρμόνιον, ἥ χρωματικῆς ἥ διατό-

νου ἐπὶ παρανήτην διεζευγμένων  
έναρμόνιον ἢ χρωματικὸν κατὰ  
τόνον τέταρτον δὲ οὖ τέταρτος  
δι τόνος ἐπὶ τὸ δέξι, ἀπὸ μέσης  
15 ἐπὶ νήτην διεζευγμένων.

= Anon § 61 (MSS:ABC)

νου ἐπὶ παρανήτην διεζευγμένων  
έναρμόνιον ἢ χρωματικὸν ἢ  
τόνον τέταρτον δὲ, οὖ τέταρτος  
δι τόνος ἐπὶ τὸ δέξι, ἀπὸ ν[ή]της  
ἐπὶ νεάτην διεζευγμένων.

3 ἀπὸ om S<sup>ac</sup> 5 οὐ P 8 οὖ] + τρίτος Anon ὁ om S 9 τρίτον] μέσων  
Anon (Vincent), ὃν AB, ὃν C 10 χρωματικοῦ S 10-11 διατόνου om S<sup>ac</sup>  
12 χρωματικὸν P 12-13 κατὰ τόνον S et ABC, ἢ τόνον P, ἢ διάτονον Anon  
(Bellermann) 14 ἐπὶ τὸ δέξι om S<sup>ac</sup> μέσης] γὰρ της P (sed νητης adhuc  
vidit Perne) 15 νήτην] νήτων S, νεάτην P

NOTES:

- \* 1. I take P's abbreviation of -κὸν in line 12 to be "the normal -ον abbreviation plus a gravis". According to Najock, the tradition of the Anonymus is split (χρωματικὸν A, χρωματικὸν BC); it is therefore difficult to ascertain which reading was in the common ancestor of P and S.
- \* 2. In line 14, the traces still preserved in P might as well be read as μ[έ]σης. But since Perne writes νήτης (the underlined letters are pencilled in Perne's apograph) and H̄øeg has [ ]της, Perne's testimony is to be accepted. S transmits the correct text. Perhaps νήτης of P reflects a mis-understanding of a correction of the faulty νεάτην in the model manuscript.

60. Τῶν δὲ τοῦ διὰ πασῶν σχημάτων δεύτερον < > ἐστὶν οὖ δεύτερος δι τόνος ἐπὶ τὸ δέξι,  
ἀπὸ ὑπάτης ὑπατῶν ἐπὶ μέσην  
5 τρίτον δὲ οὖ < > δι τόνος ἐπὶ τὸ δέξι, ἀπὸ παρυπάτης ὑπατῶν  
ἐπὶ τρίτην διεζευγμένων\* τέταρτον δὲ οὖ τέταρτον τὸ ἐπὶ τὸ δέξι,  
τὸ δέξι, ἀπὸ λιχανοῦ ὑπάτης ἐν-  
10 αρμονίου < > ἐπὶ παρανήτην διε-  
ζευγμένων ἐναρμόνιον ἢ χρωματικὸν ἢ διάτονον\* πέμπτον δὲ οὖ  
πέμπτος δι τόνος ἐστὶν ἐπὶ τὸ δέξι,  
ἀπὸ ὑπάτης μέσον ἐπὶ νή-  
15 την διεζευγμένων\* ἕκτον δὲ οὖ  
ἕκτος δι τόνος ἐστὶν ἐπὶ τὸ δέξι,  
ἀπὸ παρυπάτης μέσων ἐπὶ τρίτην  
ὑπερβολαίων\* ἕβδομον οὖ ἕβδο-

P: τῶν δὲ | τοῦ διαπασῶν σχημάτων\* δεύτερος ἐστὶν οὖ  
14v δι δεύτερος τόνος ἐπὶ τὸ δέξι,  
ἀπὸ ὑπάτης ὑπατῶν ἐπὶ μέσην\*  
τρίτος οὖ ὁ τόνος ἐπὶ τὸ δέξι,  
τὸ δέξι, ἀπὸ ὑπάτης ὑπατῶν  
ἐπὶ τρίτην διεζευγμένων\* τέταρτος δὲ οὖ τέταρτον τὸ ἐπὶ τὸ δέξι  
ἀπὸ λιχανοῦ ὑπάτης ἐναρμονίου\* ἐπὶ παρανήτην διεζευγμένων ἐναρμόνιον\* ἐπὶ παρανήτην διεζευγμένων ἐναρμόνιον ἢ χρωματικὸν ἢ διάτονον\* πέμπτος δὲ, οὖ δι πέμπτος δι τόνος ἐστὶν ἐπὶ τὸ δέξι ἀπὸ ὑπάτης μέσων ἐπὶ νήτην διεζευγμένων\* ἕκτος δὲ οὖ ἕκτος δι τόνος < > ἐπὶ τὸ δέξι  
ἀπὸ ὑπάτης μέσων ἐπὶ τρίτην  
ὑπερβολαίων\* ἕβδομος οὖ ἕβδο-

μος ὁ τόνος ἔστιν ἐπὶ τὸ ὄξυν  
 20 ἀπὸ λιχανοῦ μέσων ἐναρμονίου  
 ἡ χρωματικῆς ἡ διατόνου ἐπὶ·  
 παρανήτην ὑπερβολαίων ἐναρμό-  
 νιον ἡ χρωματικὸν ἡ διάτονον·  
ὅγδοον δὲ οὗ ὅγδοος ὁ τόνος  
 25 ἔστιν ἐπὶ τὸ ὄξυν, ἀπὸ μέσης  
 ἐπὶ νήτην ὑπερβολαίων.

= Anon § 62 (MSS:ABC)

μος ὁ τόνος ἔστιν· ἐπὶ τὸ ὄξυν,  
 ἀπὸ] λιχάνου μέσων ἐναρμονίου  
 ἡ χρωματικῆς ἡ διατόνου· ἐπὶ<sup>1</sup>  
 παρανήτην ὑπερβολαίων· <

> ὅγδοον δὲ· οὗ ὅγδοος ὁ τόνος  
 ἔστιν ἐπὶ τὸ ὄξυν ἀπὸ μέσης  
 ἐπὶ νήτον ὑπερβόλαιον:-

1 τοῦ om S 1-2 σχημάτων PS Anon (Vincent), σχήματα ἔστιν ABC, σχήματα  
 ἔστιν· < πρῶτον μὲν, οὗ πρῶτος ὁ τόνος ἐπὶ τὸ ὄξυν ἀπὸ προσλαμβανομένου  
 ἐπὶ μέσην> coniecit Bellermann, sed Vincent (quem Najock secutus est)  
 numeros tota sectione mutare maluit, ita ut pro δεύτερον πρῶτον, pro  
 τρίτον δεύτερον etc legendum esse contenderet. Hic tantum codices P et  
 S cum libris manuscriptis ABC comparantur 2 δεύτερον S, δεύτερος P,  
 δεύτερον δὲ ABC 3 δεύτερος ὁ SAB, ὁ δεύτερος P, θυτὸς ὁ C 4 μέσην  
 PS, παραμέσην Anon (AB), παραμέσων C 5 τρίτον δὲ] τρίτος δὲ B, τρίτος  
 P οὗ] + τρίτος Anon (AB), + τρίτου C ὁ om C 6 παρυπάτης] ὑπάτης P  
 7 ἐπὶ] + μέσην P<sup>ac</sup> (deleuit ipse) τρίτον S 7-8 τέταρτος δὲ P 8 τέταρτον  
 τὸ P, τέταρτον S, τέταρτος ὁ τόνος ABC 9 ὑπάτῶν Anon (Bellermann)  
 9-10 ἐναρμόνιον S, + ἡ χρωματικῆς ἡ διατόνου Anon (Vincent) 10-11 παρά-  
 νιτον διεζευγμένον S 11-12 χρωματικὴν Anon (C), χρωματικὴν S 12 πέμπ-  
 τος δὲ P 13 ὁ πέμπτος ὁ τόνος P 14 μέσων Anon (ABC) 15 διεζευγμένον  
 S 16 ἕκτος δὲ P ἔστιν om P 17 ἀπὸ - 19 ὄξυν om. S<sup>ac</sup> (add ipse marg),  
 bis scripsit C 17 παρυπάτης] ὑπάτης P μέσον S 18 ἔβδομον] ἔβδομος P,  
 ἔβδομον δὲ S 20 ἐναρμόνιον S 22 παρανήτων S 22 ἐναρμόνιον - 23  
 διάτονον om P 23 χρωματικὴν Anon (Najock) διὰ τόνου S 26 νήτον.  
 ὑπερβόλαιον P, νήτην ὑπερβολεῶν S

#### NOTES:

- \* 1. the faulty text of the archetypus was transmitted in the common ancestor of P and S with the following changes:

1-2 σχήματα ἔστιν	: σχημάτων
2 δεύτερον δὲ	: δεύτερον
4 παραμέσην	: μέσην
5 οὗ τρίτος	: οὗ
10 τέταρτος ὁ τόνος	: τέταρτον τὸ P, τέταρτον S
9 ὑπάτῶν	: ὑπάτης
14 μέσων	: μέσον

The list is probably not complete; it may be, for instance, that a νήτον (for νήτη) hides behind 10 παράνιτον (S), 22 παρανήτων (S), and 26 νήτον (P). See also §62 note 2.

- \* 2. It is difficult to understand what made P change the neuter forms in lines 2,5,7-8 etc. into masculines. Curiously enough, the ὅγδοον in 24 has been kept intact.
- \* 3. The omission of δὲ (line 2, after δεύτερον) may be a deliberate emendation.

XVI. 61. Τόποι φωνῶν τέσσαρεις· ὑπατοειδῆ, μεσοειδῆ, νητοειδῆ, ὑπερβολοειδῆ. ἐν μὲν οὖν τῷ πρώτῳ τέτραχορδα πέντε·

5 ὑπολύδια δύο, ὑποφρύγια δύο, ὑποδώριον ἔν. ἐν δὲ τῷ δευτέρῳ 15r τρίᾳ· δώρια δύο καὶ φρύγιον ἔν. ἐν δὲ τῷ τρίτῳ μυξολύδια δύο, ὑπερβολαίων < >. ὑπερβολοειδῆς

10 ἔστι πᾶς δὲ ἀπὸ τοῦ ὑπερμιξολυδίου.

P: Τόποι δὲ φωνῶν τέσσαρεις· ὑπατοειδῆ, μεσοειδῆ, νητοειδῆ, ὑπερβολοειδῆ· ἐν μὲν οὖν τῷ πρώτῳ, τέτραχος δ' απέντε, ὑπολύδια δύο· ὑποφρύγια δύο·

5 ὑποδώριον [ν ἔν]γ· ἐν δὲ τῷ δευτέρῳ, τρίᾳ· δώρια δύο καὶ φρύγιον ἔν· ἐν δὲ τῷ τρίτῳ μυξολύδια δύο

ὑπερβολαίων ὑπερβολοειδῆς

15 ἔστι, πᾶς δὲ ἀπὸ τοῦ ὑπερμιξολυδίου,

= Anon § 63 (MSS:ABC)

1 τόποι + δὲ P φωνῆς Anon 2-3 -δὴ quater S, -δής Anon 4 τετράχορδος S, τετραχῶς P πέντε] δ' απέντε P, ής S (ut videtur) 5 ὑπολύδια P et C, ἀπολύδια AB, ὑπολύδιοι S ὑποφρύγιοι S 7 δώρια] λύδια Anon (Najock, Vincent) καὶ non habet Anon 8 μυξολύδια P, μυξολύδιον S δύο] ἔν S 9 ὑπερβολαίων ἔν ABC, ὑπερβολαίων P, ὑπερβολαίως S, ὑπερμιξολύδιον ἔν Anon (Bellermann)

NOTES:

- \* 1. Τετραχῶς δ' απέντε (P, line 4) is easily explained; but what is behind the ής of S?
- \* 2. Μιξολύδιον ἔν ὑπερβολαίως (S, lines 8-9) seems to be an attempt to get something out of a corrupt text.

62. "Αρχεται δὲ δὲ μὲν ὑπατοειδῆς τόποις ἀπὸ ὑπάτης μέσων ὑποδωρίου καὶ λήγει ἐπὶ μέσον δώριον· δὲ μεσοειδής ἀρχεται

5 ἀπὸ ὑπάτης μὲν φρυγίων, λήγει δὲ ἐπὶ μέσον λύδιον· δὲ δὲ νητοειδής ἀρχεται μὲν ἀπὸ μέσης λυδίου, λήγει δὲ ἐπὶ νήτην συν-

P: ἀρχεται δέ· δὲ μὲν ὑπατοειδής τόπος, ἀπὸ ὑπάτης μέσων ὑποδωρίου· καὶ λήγει ἐπὶ μέσον δώριον· δὲ δὲ μεσοειδής, ἀρχεται ἀπὸ ὑπάτης μὲν φρυγίου λήγει δὲ ἐπὶ μέσον λύδιον· δὲ δὲ νητοειδής ἀρχεται μὲν ἀπὸ μέσης ληδίου· λήγει δὲ ἐπὶ νήτην συν-

ημμένων < > ὁ δὲ μετὰ τούτου ημμένων ὁ δὲ μετὰ τούτου  
 10 < > ὑπερβολοειδῆς.  
 = Anon § 64 (MSS:ABC)

1 δὲ om S μὲν post ἄρχεται transposuit S 2-3 μέσον ὑποδόριον S  
 3 μέσην Anon (Najock), μέσων ABC 3-4 δόριον S, ὑπολύδιον Anon (Ge-  
 vaert) 4 ἄρχεται] + μὲν S et Anon (Najock, e codice S) 5 μὲν om S et  
 Anon (Najock, ut supra), μέσων coniecit Bellermann φρυγίου P et Anon (Na-  
 jock), φρύγιον S, φρυγίων ABC 6 μέσην Anon (Najock, Bellermann), μέσων ABC  
 8 λυδίου] μιξολυδίου Anon (Najock), λύδιον S νήτων S 8-9 συνημένων]  
 + ὑπερμιξολύδιον Anon (Najock, Vincent) 9 τούτου P, τούτους ἐστὶν Anon

## NOTES:

- \* 1. In line 5, it is perhaps more likely that the common ancestor of P and S had the misspelling φρυγίον (for φρυγίων). S corrected the accentuation, P emended φρυγίον into φρυγίου.
- \* 2. For νήτων (S, line 8), cf. §60 note 1.

XVII 63. Μεταβολὴ δέ ἔστιν ὁμοίου τινὸς εἰς ἀνόμοιον τόπον ἀλλοί-  
 ωσις ἵσχυρὰ καὶ ἀθρόα. τῶν δὲ μεταβολῶν αἱ μέν εἰσι γενικαί,  
 5 αἱ δὲ τονικαί, αἱ δὲ συστηματι-  
 καί· καὶ γενικαὶ μὲν αἱ τῶν γενῶν εἰς ἀλληλα μεταβολαί.  
 οἶον ἀρμονίας χρῶμα· τονικαὶ δέ αἱ τῶν τόνων (οἶον λυδίου,  
 10 φρυγίου καὶ τῶν λοιπῶν) εἰς αὐτὰς μεταβολαί· συστηματικαὶ δέ, ὀπόταν ἐκ διαζεύξεως εἰς συναφήν ἦ ἔμπαλιν μετέλθῃ τὸ μέλος.

= Anon § 65 (MSS:ABC)

1 δὲ om S 4 et 6 γενικαὶ S 5 αἱ - 6 μὲν om ABC, restituit Najock (e codice P et S) 7 γενῶν S 8 ἀρμονίας P, ἀρμόνιον S, ἀρμονία Anon 8 τονικαὶ Anon (AB), τονικὸν C, τονικὰ P, τόνων S 9 δὲ] + εἰσὶν P λυδίος P, λυδίου καὶ S 10 φρύγιος P 11 αὐτοὺς Anon (Najock), αὐτῶν S 11 μεταβολαί Anon (Najock, e PS), μεταβολὴ ABC 13 ἐκ πάλιν S 14 μέλος] + μελωδίᾳ S

P: Μεταβολὴ δέ ἔστιν ὁμοίου τινὸς εἰς ἀνόμοιον τόπον ἀλλοί-  
 ωσις ἵσχυρὰ καὶ ἀθρόα· τῶν δὲ μεταβολῶν, αἱ μέν εἰσι γενικαὶ·  
 αἱ δὲ τονικαὶ· αἱ δὲ, συστηματι-  
 καὶ· καὶ γενικαὶ μὲν αἱ τῶν γενῶν εἰς ἀλληλα μεταβολαί·  
 οἶον, ἀρμονίας χρῶμα· τονικαὶ δέ εἰσὶν, αἱ τῶν τόνων, οἶον, λυδίος·  
 φρύγιος καὶ τῶν λοιπῶν· εἰς αὐτὰς μεταβολαί· συ< >ματικαὶ δὲ, ὀπόταν ἐκ διαζεύξεως εἰς συναφήν ἦ ἔμπαλιν μετέλθῃ τὸ μέλος·

## NOTES:

- \* 1. Najock 1975 p.XVI takes 5-6 to be a conjecture in the model of P and S.
- \* 2. If the reading of S in line 9 (τόνων) is considered to be an attempt to emendate, it is less likely that the common ancestor of P and S had the correct reading τονικά. Maybe rather τονικά - a small error which must then have been already in the *archetypus* and which has called forth the emendations of S and C, as well as the correct emendation of AB.
- \* 3. The word μελωδία which ends the paragraph in S may have its origin in the μελοποιά which introduces the next paragraph. Between these two paragraphs S has only a comma.

64. Μελοποιά δέ ἔστι ποιά  
χρῆσις τῶν ὑποκειμένων.

P: [μ]ελοποιά δέ ἔστι ποιά

15v χρῆσις τῶν | ὑποκειμένων:-

= Anon § 66 (MSS: ABC)

1 δέ om S 2 post ὑποκειμένων finem sectionis indicant PS et B, sectionem continuant A et C

## NOTES:

- \* 1. The Melopoia is normally treated at the end of the compendia, see e.g. Cleonides (ed. Jan, pp. 206-07).
- \* 2. The rest of Anon §66 is printed below, as §86.
- \* 3. Once more, S leaves out the δέ at the beginning of a paragraph; cf. §§58,62,63 - and below §§65.

XVIII 65. Διάστημα δέ ἔστι τὸ περι-  
εχόμενον ἢ τοι ὡρισμένον ὑπὸ<sup>1</sup>  
δύο φθόγγων ἀνομοίων τῇ τάσει.  
τὸ γάρ διάστημα φαίνεται, ὡς  
5 τύπω εἰπεῖν, τάσεων διαφορά  
εἰναι καὶ ὅλως τόπος δεκτικὸς  
φθόγγων ὁξυτέρων μὲν οὕτε πέ-  
ρας ούσῶν τῇ τῶν δριζουσῶν  
τὸ διάστημα τάσεως, βαρυτέρας  
10 < > δέ ἀνάπαλιν. διαφορὰ δέ  
ἔστι τῶν τάσεων τὸ μᾶλλον ἢ  
ἡττον τετάσθαι.

= Anon § 50 (MSS: ABCD)

1 δέ om S et ABC 5 τάσεως S 7 οὕτε om S, ἅτε Anon (Najock) 8 οὔσης  
Anon 9 τάσεων Anon (ex Aristoxeno) βαρυτέρας] + βαρυτέρων Anon (Na-  
jock) 10 ἀνάπαλον P

P: Διάστημα δέ ἔστι τὸ περι-  
εχόμενον ἢ τοι ὡρισμένον ὑπὸ<sup>1</sup>  
δύο φθόγγων ἀνομίων τῇ τάσει.  
τὸ γάρ διάστημα φαίνεται ὡς  
τύπω εἰπεῖν, τάσεων διαφορᾶ  
εἰναι καὶ ὅλως τόπος δεκτικὸς  
φθόγγων ὁξυτέρων μὲν οὕτε πέ-  
ρας ούσῶν τῇ τῶν δριζουσῶν  
τὸ διάστημα τάσεως βαρυτέρας  
δέ ἀνάπαλον διαφορὰ δέ  
ἔστι τῶν τάσεων τὸ μᾶλλον ἢ  
ἡττον τετάσθαι.

## NOTES:

- \* 1. It is impossible to decide whether or not the common ancestor of P and S had δὲ in line 1. See §64 note 3 on S's frequent leaving out of this particle.
- \* 2. on p. 219 of his Göttingen edition Najock includes οὐσῶν (8) among the "Sonderfehler oder Konjekturen" of these MSS. But as long as the corrupt text of the *archetypus* has not been satisfactorily restored, we cannot know for sure.

---

<p>66. Σύστημα δέ ἐστι σύνταξις πλειόνων φθόγγων ἐν τῷ τῆς φωνῆς τόπῳ θέσιν τινὰ ποιέαν ἔχουσα ἢ τὸ ἐκ πλειόνων ἢ ἐνὸς</p> <p>5 διαστήματος <u>συνεστός</u>. = Anon § 51 (MSS:ABC)</p>	<p>P: σύστημα δέ ἐστι σύνταξις πλειόνων φθόγγων ἐν τῷ τῆς φωνῆς τόπῳ θέσιν τινὰ ποιέαν ἔχουσα* &lt;</p> <p>&gt; :-</p>
	<p>3. τοποθεσίαν S ποιέαν om S 4 <sup>ἢ</sup> - 5 συνεστός om P 5 συνεστώς Anon</p>

---

<p>XIX 67. Εἰς μὲν τὴν φωνὴν τὴν ἀνθρωπίνην, ὥρισται κατὰ τόπουν ὃν διεξέρχεται μελῳδοῦσα. ὥρισται γάρ καὶ διέγιστος καὶ</p> <p>5 διέλαχιστος τόπος ἐπ' αὐτῆς· οὕτε γάρ ἐπὶ τὸ μέγα δύναται ἢ φωνὴ εἰς ἄπειρον αὔξειν τὴν τοῦ διέέως καὶ βαρέως διάστασιν οὕτ' ἐπὶ τὸ μικρὸν συνάγειν,</p> <p>10 ἀλλ' ἵσταται που ἐφ' ἐκάτερα.</p>	<p>P: 'Ε[ις μὲν τὴν]ν ἀνθρωπίνην φωνὴν, ὥρισται κατὰ τόπουν ὃν διεξέρχεται μελῳδοῦσα, ὥρισται &lt; &gt; καὶ διέγιστος καὶ διέλαχιστος τόπος ἐπ' αὐτῆς· οὕτε γάρ ἐπὶ τὸ μέσα δύναται ἢ φωνὴ εἰς ἄπειρον αὔξειν, τὴν τοῦ διέέως καὶ βαρέως διάστασιν, οὕτ' ἐπὶ τὸ μικρὸν συνάγειν· ἀλλ' ἵσταται που ἐφ' ἐκάτερα &lt;</p>
	<p>1 φωνὴν (sine articulo) post ἀνθρωπίνην transposuit P 2 τόπους S 3 ὃν διεξέρχεται om S 4 γάρ om P 6 ἐπὶ τὸ μέσα] ἐπιτεταμένως S, ἐπὶ τὸ μέσα P 7 αὔξειν P 8 διέέως καὶ βαρέος Anon(ABD), διέέως καὶ βαρέως C, βαρέως καὶ διέέως S 10 ὅπου S</p>

---

<p>68. Ὁριστέον οὖν ἐκάτερον αύτῶν, πρὸς δύο ποιουμένους τὴν ἀναφοράν, τὸ φθεγγόμενον καὶ</p>	<p>P: &gt; αύτῶν, πρὸς δύο ποιουμένους τὴν ἀναφοράν, τὸ φθεγγόμενον καὶ</p>
---	---

τὸ ἀρινόμενον, τουτέστι φωνὴν  
5 καὶ ἀκοήν. οὐ γάρ ἀδυνατοῦσιν 21r αῦται ἡ μὲν ποιῆσαι ἡ δὲ κρῖναι, τοῦτο ἔξω θετέον τῆς τε χρησί-  
μου καὶ δυνατῆς ἐν φωνῇ γέ-  
νεσθαι διαστάσεως. ἅμα δὲπει  
10 τὸ μικρὸν ἀδυνατοῦσιν· οὕτε γάρ ἡ φωνὴ διέσεως ἐναρμονίου ἐλαττόν τι διάστημα δύναται διασαφεῖν, οὕτε ἡ ἀκοὴ αἰσθά-  
νεσθαι ὥστε γε καὶ ξυνιέναι τὸ  
15 μέρος ἐστίν, εἴτε διέσεως εἴτε ἄλλου τινὸς τῶν γνωρίμων δια-  
στημάτων. ἐπὶ δὲ τὸ μέ..... τῆς φωνῆς τὸ βαρύ καὶ τὸ ὄξυν δὲ μουσι-  
κὸς σκοπεῖ, τουτέστι πλατὺ καὶ  
20 στενόν ἐκ τοῦ περὶ τὴν ἀρτηρίαν πάθους, ταχὺν δόξειεν ὑπερτεί-  
νειν τὴν φωνὴν ἡ ἀκοὴ, οὐ μὴν πολλῷ τινει.

= Anon § 43 (MSS:ABC)

1 'Οριστέον οὖν ἐκάτερον οἱ 4 κρινόμενον PS, κρῖνον Anon 5 οὐ PS,  
δὲ Anon 6 ποιεῖται P 8-9 γένεται διάστασις S 9 δὲ S 10 ἀδυνατήσιν P  
12 ἐλαττόν PS 12 δύναται] γένεται P 13 διασαφὴν P 17 <Ἐ>πεὶ δὲ S  
μέλος P, μέτρον S, μέγα Anon 21 δόξειεν] δόξει ἐν P, δὲ δόξεῖαν S ut  
videtur 23 τινει] τίνειν S

#### NOTES:

- \* 1. In line 17, the reading of S (πεὶ δὲ, at the beginning of the first line on the page) seems to imply that a red initial letter was planned.
- \* 2. In the same line, neither μέλος (P) nor μέτρον (S) makes sense. The other MSS correctly have μέγα, ἐπὶ τὸ μέγα corresponding to ἐπὶ τὸ μικρὸν in lines 9-10. Apparently, the model MS was difficult to read - cf. §67,6 where ἐπὶ τὸ μέγα became ἐπὶ τὸ μέσα in P, ἐπιτεταμένως in S.

69. Ἐστιν μὲν οὖν ἔδιον τῆς ἀκοῆς τὸ ἐπὶ τὸ μέγιστον, τῆς δὲ φωνῆς τὸ ἐπὶ τὸ ἐλάχιστον πέρας, ἡ κοινὸν ἀμφοτέρων. ὅπως

τὸ κρινόμενον, τουτέστι, φωνὴν καὶ [άκ]οήν· οὐ γάρ ἀδυνατοῦσιν αῦται· ἡ μὲν ποιεῖται· ἡ δὲ, κρῖναι τοῦτο· ἔξω θετέον τῆς τε χρησί-  
μου καὶ δυνατῆς ἐν φωνῇ γέ-  
νεσθαι διαστάσεως· ἅμα δὲπει  
τὸ μικρὸν ἀδυνατήσιν· οὕτε γάρ ἡ φωνὴ διέσεως ἐναρμονίου ἐλαττόν τι διάστημα γένεται διασαφὴν, οὕτε ἡ ἀκοὴ αἰσθά-  
νεσθαι ὥστε γε καὶ ξυνιέναι τὸ μέρος ἐστίν· εἴτε διέσεως εἴτε ἄλλου τινὸς τῶν γνωρίμων δια-  
στημάτων· ἐπὶ δὲ τὸ μέλος τῆς φωνῆς, τὸ βαρύ καὶ τὸ ὄξυν δὲ μουσι-  
κὸς σκοπεῖ· τουτέστι πλατὺ καὶ στενόν, ἐκ τοῦ περὶ τὴν ἀρτηρίαν πάθους· ταχὺν δόξει ἐν υπερτεί-  
νειν τὴν φωνὴν [ἡ] ἀκοῆ· οὐ μὴν πολλῷ τινει

P: ἔστιν μὲν οὖν ἔδιον [τῆς ἀκοῆς] τὸ ἐπὶ τὸ μέγιστον· τῆς δὲ φωνῆς τὸ ἐπὶ τὸ ἐλάχιστον μέρος· ἡ κοινὸν ἀμφοτέρων ὅπως

5 δ' οὖν ἐὰν λαμβάνη, ὥρισται ή τε τοῦ ὀξέως καὶ βαρέως διάστασις εἰς τε τὴν φωνὴν < > τίθησιν. < > δὲ ταύτη καθ' αὐτῇ νοηθείσῃ τῇ τοῦ μέλους φύσει τὴν αἴσησιν 10 ἀπειρον συμβήσεται γίγνεσθαι. ἀλλ' ὁ λόγος οὐκ ἀναγκαῖος εἰς τὸ παρόν.

= Anon § 44 (MSS:ABC)

δ' οὖν ἐὰν λαμβάνη ὥρισται εἴτε τοῦ ὀξέως καὶ βαρέως διάστασις, εἰς < > τὴν φωνὴν τίθησιν. δὲ ταύτη καθ' αὐτῇ νοηθήσει τῇ τοῦ μέλους φύσει τὴν αἴσησιν ἀπειρον < > γίγνεσθαι. ἀλλ' ὁ λόγος οὐκ ἀναγκαῖος < >

3 τὸ 'λάχιστον S 4 πέρας] μέρος P κοινὸν] κατὰ S 5 ἐὰν S et ABCD, ὃν Anon (Bellermann), λὰν P ut videtur (λὰψ Perne) λαμβάνη codd (λαμβάνει C), λαμβάνεται Anon (Najock), λαμβάνη τις coniecit Bellermann 6 τοῦ βαρέως S 7 ἥς S τε om P φωνὴν] + καὶ τὴν ἀκοὴν Anon (Bellermann, ex Aristoxeno) τίθησιν codd, τεθεῖσα Anon (Bellermann, ex Aristoxeno) 8 δὲ P, εἰ δὲ S et Anon ταύτη] ταύτην S et C καθ' αὐτῇ S, καθ' αὐτὴν Anon αὐτὴνοθήσει P, vide annotationem νοηθείη S et Aristoxenus 10 συμβήσεται om P 11 ἀλλ' ὁ codd, ἀλλος Anon (Najock, ex Aristoxeno) ἀναγκαῖως S 11-12 εὺς τὸ παρόν om P

NOTES:

- \* 1. In line 1, Najock's text and manuscripts read ἔστιν οὖν ἔδειν μὲν. By an oversight this reading has not been mentioned in the critical apparatus.
- \* 2. P's reading in 8 is probably to be understood as a correction *in scribendo* from αὐτὴν to αὐτῇ.

XX 70. Τοῦ μέλους τὸ μέν ἔστι λο-  
γιῶδες, τὸ δὲ μουσικόν. < >  
τὸ συγκείμενον ἐν τῶν προσωδι-  
ῶν τῶν ἐν τοῖς ὀνόμασι· φυσικὸν  
5 γάρ τὸ ἐπιτείνειν τε καὶ ἀνιέναι  
τὴν φωνὴν ἐν τῷ διαλέγεσθαι.  
μουσικὸν δέ ἔστι μέλος (περὶ ὅ  
καὶ ἡ ἀρμονία καταγίνεται) τὸ  
διαστηματικόν, τὸ ἐν φθόγγων τε  
10 καὶ διαστημάτων συγκείμενον.  
δεῖ γάρ ἐν τούτῳ διαστηματικὴν  
εἶναι τὴν τῆς φωνῆς κίνησιν, καὶ  
πλείονος ἐνὸς τὰς μονὰς.

P: <T>οῦ μέλους τὸ [μέν] ἔστι λ[ο-  
γιῶδ]ες, τὸ δὲ, μουσικὸν·  
τὸ συγκείμενον ἐκ τῶν προσωσι-  
ῶντων ἐν τοῖς ὀνόμασιν· φυσικὸν  
γάρ τὸ ἐπιτείνην τε καὶ ἀνιέναι  
τὴν φωνὴν ἐν τῷ διαλέγεσθαι·  
μουσικὸν δέ εστι μέλος περὶ ὅ  
καὶ ἡ ἀρμονία καταγίνεται τὸ  
διαστηματικὸν· τὸ ἐκ φθόγγων τε  
καὶ διαστημάτων συγκειμένων:-  
< >

= Anon §45 (MSS:ABCD)

2 μουσικόν] + λογιώδες μὲν οὖν ἔστι Anon 3-4 προσωσιόντων P 5 ἐπιτεύνην P  
8 ἀρμονικὴ Anon καταγέγνεται Anon 10 συγκευμένων P 11-13 et §§70a-d  
non habet P 13 πλείονας Anon ἐνὸς S, εἶναι Anon(ACD), om B

Quae sequuntur (§§70a-d) e codice S foll 93r-v addidi:

70a. Οὐ μόνον δὲ ἐκ διαστήματος καὶ φθόγγων δεῖ συνεστάναι τὸ  
ἡρμοσμένον μέλος· καὶ ἔχον τὴν προσήκουσαν στάσιν, ἀλλὰ προσ-  
δεῖται μιᾶς τινὸς θέσεως καὶ οὐ τῆς τυχούσης· τὸ γάρ ἐκ δια-  
στημάτων καὶ φθόγγων συνεστάναι κοινὸν καὶ τῷ ἀναρμόστῳ·

= Anon §46 (MSS:ABCD)

1 διαστημάτων Anon 2 στάσιν] τάξιν Anon 3 μιᾶς] ποιᾶς Anon

70b. ὅστε εἰς τὴν κοινῶς γιγνομένην σύστασιν τοῦ μέλους, τὸ  
πλείστην ἔχον δοπήν περὶ τὴν σύνθεσιν < > καὶ τὴν ταύτης ι-  
διότητα ὑποληπτικόν· τοῦ μὲν οὖν ἐπὶ τῆς λέξεως μέλους διοίσει  
τὸ μουσικὸν τῷ διαστηματικῇ αεχρῆσθαι κινήσει τῆς φωνῆς· τοῦ  
5 δὲ ἀναρμόστου τε καὶ διημαρτημένου, τῇ τῆς συνθέσεως διαφορᾷ  
τῶν διαστημάτων.

= Anon §47 (MSS:ABCD)

1 κοινῶς] ὄρθις Anon 2 σύνθεσιν] + ποι Anon 3 ὑποληπτέον Anon

6 finem sectionis indicat S

70c. 'Ο φθόγγος κοινὸς μὲν ἔστιν αὐτὸ τὸ δνομα, ιδίως δὲ ὁ χα-  
ρακτήρ ὁ γραφόμενος, ιδιαίτατα δὲ ἡ δύναμις αὐτῇ τοῦ φθόγγου,  
καθ' ἓν δέξιν τινα ἥ βαρύν λεγόμενον καὶ όριζόμενον φαμέν·  
φθόγγος δὲ ἔστιν φωνῆς ἐμμελοῦς πτῶσις ἐπὶ μίαν στάσιν καὶ τό-  
5 τε γάρ φαίνεται < > εἶναι τοιοῦτος οἶος εἰς μέλος τάτιεται  
ἡρμοσμένον, ὅταν ἡ φωνὴ φανῆ ἐστάναι καὶ ἐπὶ μιᾶς τάσεως·  
τάσις δὲ ἔστιν οἶον στάσις καὶ μονὴ τῆς φωνῆς,

= Anon §48 (MSS:ABCD)

1 κοινὸς SD, κοινῶς Anon(ABC) δὲ habent SD, om Anon(ABC) 2 αὐτοῦ Anon  
3 λέγομεν ὃν καὶ ὄριζόμενοί φαμεν Anon 4 στάσιν SABC et D ante corr, τά-  
σιν Anon e cod D post corr 5 φαίνεται] + φθόγγος Anon τάττεσθαι Anon  
6 καὶ codd, seclusit Anon(Bellermann)

70d. ἔστι < > τῶν ἐν μουσικῇ ὁ φθόγγος τὸ ἐλάχιστον καὶ ἀδιαιρετον ὡς μονὰς, ἐν φὶ καὶ σημεῖον ἐν γραμμῇ ἔστι δὲ ὁ φθόγγος κοινὸν κατηγόρημα διεύτητός τε καὶ βαρύτητος.

= Anon §49 (MSS:ABCD)

1 ἔστι] + δὲ Anon 2 ὡς μονὰς ἐν ἀριθμῷ Anon 3 post βαρύτητος finem sectionis indicat S

NOTES:

\* 1. The omission of 11-13 and the loss of the Anonymi paragraphs 46-49 (in the numbering of the present edition §§70a-d) - all of which is still preserved in S - is a clear demonstration of my hypothesis that there was an intermediate manuscript between S and the common ancestor of S and P, and that this intermediate manuscript was copied before one folio was lost in the common ancestor. Cf. again the article referred to in §69 note 1.

XXI 71. Τῶν μελαφδούμενων τρία ἔστι P: Τῶν μελαδουμένων τρία ἔστι γένη· ἀρμονία, χρῶμα, διάτονον. (21v) γένη· ἀρμονία χρῶμα διάτονον· ἀρμονία μὲν οὖν ἔστιν, ἐν τῷ πυκνὸν ἡμιτονιαῖον· αὕτη δέ ἔστι μονοειδής.

= Anon §52 (MSS:ABCD)

1-2 γένη ἔστιν Anon 3 οὖν om Anon 4-5 ἔστι om P

72. Χρώματος δὲ εἶδη τρία· πρῶτον μὲν καὶ ἐλάχιστον τὸ μαλακὸν καλούμενον, ἐν φὶ τὸ πυκνὸν τριῶν ἔστι διαθέσεων ἐναρμονίων άεὶ ἐν 5 διαθέσεων μοριοτόνου. δεύτερον δὲ τὸ ἡμιόλιον καλούμενον· τοῦτο δὲ ἔστιν, ἐν φὶ τὸ πυκνὸν ἡμιτονίου ἔστιν καὶ διέσεως ἐναρμονίου. τρίτον τὸ σύντονον καλούμενον, 10 ἐν φὶ τὸ πυκνὸν ἡμιτόνιον ἔστι.

= Anon §53 (MSS:ABCD)

1 δὲ om P 3 ἐν φὶ - 6 καλούμενον om P 4 διέσεων Anon 4-5 ἀεὶ διδεκάτη μοριοτόνου S ante corr, ante διδεκάτη supra lin ἐν addidit et supra ριο litteram uel litteras quarum sensum equidem non intelligo, w tamen uix esse credo, ἐν διδεκατημορίῳ ἔλαττον D (in rasura, man sec.), ἀεὶ διδεκατημορίῳ τόνου ABC, μεζον διδεκατημορίῳ τόνου Anon (Bellermann) 8 διαιρέσεως ἐναρμόνιον S

## NOTES:

\* 1. It is evident that there is a connection between the *én* of P (and of S post correcturam) and the *én* which is part of the words added by a second hand in D.

73. Διατόνου δὲ εῖδη δύο· πρῶ- P: διατόνου δὲ ἔδη δύο· πρῶ-  
τον μὲν καὶ ἐλάχιστον τὸ μαλακὸν τον μὲν καὶ ἐλάχι[στ]ον τὸ μαλακὸν  
καλούμενον· τοῦτο δέ ἔστιν, ἐν καλούμενον· <  
φ τὸ μὲν ὑπὸ ὑπάτης καὶ παρυπά-  
5 της < > καὶ λιχανοῦ ἐννάτου > ἐν ὡς τὸ μὲν  
δωδεκατημόριον ἀσύνθετον λαμβα-  
νόμενον. δεύτερον δὲ τὸ σύντο-  
νον καλούμενον, ἐν φ τὸ μὲν  
ὑπὸ ὑπάτης καὶ παρυπάτης διά-  
10 στημα ἡμιτονιαῖόν ἔστι, τὸ δὲ  
παρυπάτης καὶ λιχανοῦ τονιαῖον. [ὑπὸ ὑπά]της καὶ παρυπάτης, διά-  
στημα ἡμιτονι[αῖον ἔστι], τὸ δὲ  
παρυπάτης καὶ λιχανοῦ τονιαῖον  
= Anon §54 (MSS:ABCD)

3 τοῦτο - 8 καλούμενον om P 4 ὑπὸ S et B, ἀπὸ ACD, seclusit Anon(Najock)  
4-5 καὶ παρυπάτης S (ante correcturam; deleuit ipse, ut uidetur), om ABCD,  
καὶ παρυπάτης διάστημα ἡμιτονιαῖόν ἔστι, τὸ δὲ παρυπάτης Anon(Najock, cf  
Bellermann) 5 ἐννάτου (uel ἐννάτη?) S, ἐννέα Anon 6 δωδεκατημορίων  
Anon 6-7 λαμβανομένων Anon 9 ὑπὸ S, ἀπὸ ABCD, seclusit Anon(Najock)  
καὶ + τὸ ABCD, seclusit Anon(Najock, cum PS et Par 2460) 11 τονιαῖ-  
ον] + ἔστιν S

74. <Η> δὲ ἀρμονικὴ ὡς φαμεν P: < > δὲ ἀρμονικὴ ὡς φαμὲν,  
μονοειδῆς ὑπάρχει. μονοειδῆς ὑπάρχει[ρ]χει[.]  
= Anon §55 (MSS:ABCD)

1 litteram initialem om PS ἀρμονικὴ codd, ἀρμονία Anon(Bellermann)

75. Πυκνὸν δέ ἔστι τὸ ἐκ δύο δι- P: πυκνὸν δέ ἔστι, τὸ ἐκ δύο δι-  
αστημάτων περιεχόμενον έλαττόνων αστημάτων περιεχ[ό]μενον,έλαττόνων  
τοῦ καλουμένου διαστήματος εἰς 16r τοῦ καλου[μέ]γου διαστήματος |εἰς  
τὴν διὰ τεσσάρων συμφωνίαν. < > διατεσσάρων συμφωνίαν.

= Anon §56 (MSS:ABCD)

2 παρεχόμενον S, περιολυμενον (sic) Perne ἔλαττόνου S, ἔλαττον Anon(e  
cod Neap 1) 3 καλουμένου adhuc vidit Perne, καταλειπομένου Anon  
4 τὴν om P, τὴν τῶν D συμφωνιῶν S post corr

76. Ἐν δὲ τοῖς εἰρημένοις γένε-  
σι λιχανοὶ μέν εἰσιν ἔξ, παρυπά-  
ται δὲ τέσσαρες· λιχανοῦ δέ στιν  
δι σύμπας τόπος ἐν φι κινεῖται το-  
5 νιαῖος, δέ τῆς παρυπάτης τόπος  
διέσεως ἐλαχίστης.

= Anon §57 (MSS:ABCD)

1 ἐκ P 2 εἰσιν] ἐστὶν S 2-3 παρυπάτη δὲ τετάρτη P 3 λιχανὸς P  
4 τόπος δι σύμπας S

XXII 77. Τῆς φωνῆς τόπος ἐστιν καὶ  
κατὰ τόπον κίνησις, καθ' ἣν με-  
λφδοῦσα διευτέρα καὶ βαρυτέρα  
γίνεται.

= Anon §33 (MSS:ABCD)

2 καθὸν P, non liq D

τη δὲ τετάρτη· λιχανὸς δέ ἐστιν  
δι σύμπας τόπος· ἐν ἀκινεῖται το-  
νιαῖος· δέ τῆς παρυπάτης τόπος  
διέσεως ἐλαχίστης:-

78. Πᾶσα μὲν οὖν φωνὴ οὕτω δύνα- P: πᾶσα μὲν οὖν φωνὴ, οὕτω δύνα-  
ται κινεῖσθαι· ἀλλ' ἡ μέν ἐστι συν- ται κινεῖσθαι· ἀλλ' ἡ μέν ἐστι συν-  
εχῆς, ἡ δὲ διαστηματικὴ κίνησις.  
κατὰ μὲν οὖν τὴν συνεχῆ οἶεται ἡ  
5 ἀκοὴ μηδαμοῦ ἐστάναι ἀλλὰ φέρε-  
σθαι συνεχῶς μέχρι σιωπῆς, κατὰ  
δὲ τὴν διαστηματικὴν ἐναντίως·  
διαβαίνουσα γάρ οἰστησιν αὐτὴν  
έπι μιᾶς τάσεως, εἴτα πάλιν ἐφ'  
10 ἐτέρας, καὶ τοῦτο συνεχῶς ποι-  
οῦσα - λέγω δὲ συνεχῶς κατὰ τὸν  
χρόνον - ὑπερβαίνουσα μὲν < >  
τοὺς περιεχομένους ὑπὸ τῶν τά-  
σεων τόπους, οἰσταμένη δὲ ἐπ' αὐ-  
15 τῶν τῶν τάσεων καὶ φθεγγούμενη  
ταύτας μόνον αὐτὰς μελφδεῖν λέ-  
γεται καὶ κινεῖσθαι διαστηματι-  
κὴν κίνησιν. καὶ καλεῖται ἡ μὲν 16ν  
λογικὴ, ἡ δὲ μελφδικὴ.

= Anon §34 (MSS:ABCD)

P: Τῆς φωνῆς τόπος ἐστὶν καὶ  
κατὰ τόπον κίνησις, καθὸν με-  
λφδοῦσα διευτέρα καὶ βαρυτέρα  
γίνεται.

πᾶσα μὲν οὖν φωνὴ, οὕτω δύνα-  
ται κινεῖσθαι· ἀλλ' ἡ μέν ἐστι συν-  
εχῆς· ἡ δὲ, διαστηματικὴ κίνησις·  
κατὰ μὲν οὖν τὴν συνεχῆ οἶεται ἡ  
ἀκοὴ μηδαμοῦ, ἐστᾶναι· ἀλλὰ φέρε-  
σθαι συνεχῶς μέχρι σιωπῆς· κατὰ  
δὲ τὴν διαστηματικὴν ἐναντίως·  
οὗτης γάρ αὐτὴν διαβαίνουσα  
έπι μιᾶς τάσεως· εἴτα πάλιν ἐφ-  
ετέρα, καὶ τοῦτο συνεχῶς ποι-  
οῦσα, λέγω δὲ συνεχῶς κατὰ τὸν  
χρόνον ὑπερβαίνουσα μὲν  
τοὺς περιεχομένους, ὑπὸ τῶν τά-  
σεων τόπους· οἰσταμένη δὲ ἐπ' αὐ-  
τῶν τῶν τάσεων, καὶ φθεγγούμενη·  
ταύτας μόνον αὐτὰς μελωδεῖν λέ-  
γεται· καὶ [κινεῖσθαι διαστηματι-  
κὴν κίνησιν | καὶ καλεῖται ἡ μὲν  
λογικὴ· ἡ δὲ μελφδικὴ·

1-2 δύνασθαις S 4 οὖν om S 5-6 ἀλλὰ φέρεσθαι] ἀναφέρεται S 8 [ζσ]τη-  
σι γὰρ αὐτὴν διαβαλνουσα P 9-10 ἐφετέρα P 10 ποιοῦσα - 11 συνεχῶς om  
S, in marg suppl C 12 μὲν] + οὖν Anon 14 ὑπ' S 18 καὶ - 19 μελψ-  
δικὴ hic habent codd, post 3 κίνησις fortasse transponenda (Najock)  
18-19 ἡ μὲν μελωδικὴ ἡ δὲ λογικὴ S

## NOTES:

\* 1. Observe that S and C make the same omission *per homoeoteleuton* (10-11).

79. Τὸν γὰρ τοῦτο ποιοῦντα οὐ-  
δείς φησι λέγειν ἀλλ' ἄδειν,  
ἐκάτερόν τε ἐν τῇ τοῦ λοιποῦ  
χρείᾳ < > ὅσσον γὰρ ἴσταμεθα,  
5 γίνεται τῇ ἀκοῇ τὸ μέλος ἀκρι-  
βέστερον.

= Anon §35 (MSS:ABCD)

1 τὸν] τὰ S 2 ἀλλὰ μελωδεῖται S 3 ἀείδειν Anon 4 ἐκατέρα P  
τε codd (τὸ S), δὲ Anon (Bellermann) 4 χρείᾳ] + φευκτέον Anon (Najock, ex  
Aristoxeno) 5 ὅσφ Anon (sed ὅσον olim coniecit Vincent) 5 γίγνεται Anon

80. Ἐπειδὴ τούνυν ἀναγκαῖον ἐν  
τῷ μελωδεῖν τὴν φωνὴν τὰς μὲν  
ἐπιτάσεις καὶ ἀνέσεις ἀφανῶς  
ποιεῖσθαι, τὰς δὲ τάσεις αὐτὰς  
5 φθεγγομένας φανερὰς καθιστᾶν  
(έπειδήπερ τὸν μὲν τοῦ διαστή-  
ματος τόπον < > διεξέρχεται,  
ὅτε μὲν ἐπιτεινομένη, ὅτε δὲ  
ἀνιεμένη) καὶ λανθάνειν αὐτὴν

10 δεῖ διεξιοῦσαν, τοὺς διλοίζον-  
τας φθόγγους τὰ διαστήματα ἐν-  
αργεῖς τε καὶ ἐστηκότας ἀποδι-  
δόνται, λεκτέον ἄν εἴη περὶ ἐπι-  
τάσεώς τε καὶ ἀνέσεως, ἔτι δὲ  
15 δεύτητός τε καὶ βαρύτητος· πρὸς  
δὲ τούτοις τάσεως καὶ τῶν ἀκο-  
λούθων. Ἐπίτασις μὲν οὖν ἔστι

P: τὸν γὰρ τοῦτο ποιοῦντα· οὐ-  
δείς φησὶ λέγειν, ἀλλ' ἄδειν  
ἐκατέρα τε ἐν τῇ τοῦ λοιποῦ  
χρείᾳ· ὅσον γὰρ ἴσταμεθα,  
γίνεται τῇ ἀκοῇ τὸ μέλος ἀκρι-  
βέστερον.

P: ἐπειδὴ τούνυν ἀναγκαῖον, ἐν  
τῷ μελωδεῖν τὴν φωνὴν· τὰς μὲν  
ἐπιτάσεις καὶ ἀνέσεις ἀφανῶς  
ποιεῖσθαι, τὰς δὲ τάσεις φθεγγο-  
μένας αὐτὰς φανερὰς καθιστάν·  
ἐπειδήπερ τὸν μὲν τοῦ διαστή-  
ματος τόπον διεξέρχεται·  
ὅτε μὴ ἐπιτεινομένη· ὅτε δὲ  
ἀνιεμένη· καὶ λανθάνειν αὐτὴν  
< > διεξιοῦσαν· [τοὺς διλοίζον-  
τας φθόγγους, τὰ διαστήματα ἐν-  
[αργεῖς] τε καὶ ἐστηκότας ἀποδι-  
δόνται· λεκτέον ἄν εἴη περὶ ἐπι-  
τάσεώς τε καὶ ἀνέσεως· ἔτι δὲ  
διεύτητά τε καὶ βαρύτητα· πρὸς  
δὲ τούτοις τάσεως καὶ τῶν ἀκο-  
λούθων· ἐπίτασις μὲν οὖν ἔστι,

κίνησίς τις φωνῆς συνεχής ἐκ  
βαρύτητος τόπου εἰς ὀξύτητα,  
20 ἀνεσις δὲ < > όξυτέρα τόπου  
εἰς βαρύτητα· ὀξύτης δὲ τὸ γι-  
νόμενον διὰ τῆς ἐπιτάσεως, τὸ  
δὲ διὰ τῆς ἀνέσεως βαρύτης.

= Anon §36 (MSS:ABCD)

5 φθεγγομένην Anon(Najock, ex Aristoxeno), φθεγγομένη C, φθεγγομένους  
ABD, φθεγγομένας S et P (ordine mutato uerborum) 7 τόπου] + ὃν A-  
non (Bellermann, ex Aristoxeno) 8 μὲν] μὴ P 9 ἀνιμένη P καὶ om Anon  
10 δεῦ S et Anon(Bellermann, ex Aristoxeno), δὲ ABCD, om P 10-11 διο-  
ρίζοντας codd præter P qui δὲ, δρίζονται habuisse uidetur, δὲ δρίζον-  
τας Anon(Richter, cf Bellermann) 11 φθόγγη S 15 ὀξύτητα et βαρύτη-  
τα P 16 τάσεως] + τε S 17 ἐπέτασις] "Ἐπέτα εἰς S ut uidetur  
18 τις P et AB, τῆς S et Anon(CD et Par 2532) φωνῆ P 19 βαρύτητος S,  
βαρύτητα P ut uidetur, βαρυτάτου ABCD, βαρυτέρου Anon(Vincent) 20 δὲ]  
+ ἐξ Anon ὀξυτέρα P, ὀξύτητος S, ὀξυτέρου Anon 21-22 γενόμενον Anon

81. Ἐπιτείνοντες μὲν οὖν ὡς ἐπὶ P: |ἐπιτείνοντες μὲν οὖν, ὡς ἐπὶ  
δργάνων εἰπεῖν τὴν χορδὴν, εἰς 22r δργάνω εἰπεῖν τὴν χορδάν, εἰς  
ὀξύτητα αὐτὴν ἄγομεν, ἀνιέντες  
δὲ εἰς βαρύτητα. καθ' ὅν δὲ χρό-  
5 νον ἄγομέν ιε καὶ μετακινοῦμεν  
τὴν χορδὴν εἰς ὀξύτητα, οὕπω  
ἔστιν < > όξυτης· γί-  
νεται γάρ καὶ μέλλει· δύοις  
δὲ καὶ ἡ βαρύτης. ἅμα γάρ αἱ  
10 κινήσεις παύονται, καὶ ἐπιφοιτᾶ<sup>τ</sup>  
ἡ τε ὀξύτης καὶ ἡ βαρύτης· οὐ  
γάρ ἐνδέχεται τὴν χορδὴν ἅμα τε  
κινεῖσθαι καὶ ἐστάναι.

= Anon §37 (MSS:ABCD)

2 δργάνων S et Anon(ACD), δργάνω P et B χορδὰν P (post corr?), χορδᾶν  
P (ante corr?) 3 ἀνυέντες P 5 τε om Anon 7 ἔστιν Anon(Najock)  
ὀξύτητος] ἡ ὀξύτης Anon, ὀξύτης ἡ βαρύτης P 7-8 γίγνεται Anon, ὡς γίνεται S  
8 μέλλει] + ἡ ὀξύτης γενέσθαι S, μέλη P 10-11 ἐπιφοιτᾶ ἡ ὀξύτης S, ἐπι-  
φοιτᾶται εἴτη ὀξύτης P

82. Διαφέρει ούν ἀλλήλων τάδε  
ώς τὸ ποιοῦν τοῦ ποιουμένου.  
= Anon §38 (MSS:ABCD)

2 ποιουμένου (sic) P

83. Τάσις δέ ἔστι μονή τις καὶ  
στάσις τῆς φωνῆς. τότε δέ λέγο-  
μεν ἐστάναι τὴν φωνὴν, καίτοι  
τῆς φωνῆς κινήσεως οὕσης, δταν  
5 ήμεν ἡ αἴσθησις αὐτὴν ἀποφήνη  
μήτ' ἐπὶ τὸ δεῦ μήτ' ἐπὶ τὸ βαρὺ  
δρομῶσαν. ἐν μὲν γάρ τῷ διαστήμα-  
τι λέγοιτ' ἄν κινεῖσθαι ἡ φωνή,  
ἴσταται δὲ ἐν τῷ φθόγγῳ. ἀλλως  
10 ούν λέγεται ἡρεμία φωνῆς παρὰ  
μουσικοῖς καὶ κινησις, καὶ ἀλ-  
λως παρ' ἄλλοις.

= Anon §39 (MSS:ABCD)

1-2 μόνη τῆς κατάστασις P, μονὴ τὸς καὶ φάσις S, μονὴ τις καὶ στάσις Anon  
2 τότε - 4 φωνῆς om P 6 ἐπὶ τοῦ S ut videtur 7 δρομῶσης P 9 ἀλλ' ὡς P  
10-11 παρὰ μουσικοῖς S et Anon(D), παρὰ μουσικῆς P et C, περὶ μουσικοῖς A,  
περὶ μουσικῆς B 11 βίνησις P 11-12 ἄλλοις P

84. Ἐπίτασις μὲν γάρ καὶ ἄνεσις P: ἐπίτασις μὲν γάρ καὶ ἄνευσις,  
κίνησις φωνῆς, τάσις δὲ καὶ ἡρε-  
μία διαφέρει δεύτητος καὶ βαρύ-  
τητος.

κίνησις φωνῆς τάσις [...] ἡρε-  
μία διαφέρει δεύτητα καὶ βαρύ-  
τητα.

= Anon §40 (MSS:ABCD)

1 ἄνευσις P 2-3 καὶ ἡρεμία codd, ἡρεμία καὶ Anon(Bellermann), de P dubi-  
tandum (accentus tantum acutus cernitur quem interpretari non ausus sum)  
3-4 δεύτητα et βαρύτητα P

85. Ἐπ' ἀμφοτέρων γάρ οὐ τε στά-  
σις καὶ οὐ τάσις θεωρεῖται.

= Anon §41 (MSS:ABCD)

2 οὐ om Anon post θεωρεῖται non distinguit P

P: διαφέρει ούν ἀλλήλων τάδε·  
ώς τὸ ποιουμένου ποιουμένου·

P: τάσις δὲ ἔστιν μόνη τῆς κατά-  
στασις τῆς φωνῆς <

> κινήσεως οὕσης ὅταν  
ἡμενὶ ἡ αἴσθησις αὐτὴν ἀποφήνη·  
μητ' ἐπὶ τὸ δεῦ μήτ' ἐπὶ τὸ βαρὺ  
δρομῶσης· ἐν μὲν γάρ τῷ διαστήμα-  
τι λέγειται· ἄν κινεῖσθαι ἡ φωνή·  
ἴσταται δὲ ἐν τῷ φθόγγῳ· ἀλλ' ὡς  
ούν λέγεται ἡρεμία φωνῆς παρὰ  
μουσικῆς καὶ βίνησις καὶ ἄλ-  
λοις παράλλοις·

86. Τῇς μουσικῇς ἐπιστήμης πο-  
λυμεροῦς ὑπαρχούσης μέρος ἐστὶν  
ἡ ἀρμονική, διαιρεθεῖσα εἰς τρό-  
πους πεντεκαίδεκα, δύν πρῶτος λύ-  
διος.

= Anon §66 (MSS:ABC)

2 ὑπαρχούσης] + ἡς ABC 4-5 πρωτολύδιος P

P: τῇς μουσικῇς ἐπιστήμης πο-  
λυμεροῦς ὑπαρχούσης μέρος ἐστὶν  
ἡ ἀρμονική διαιρεθεῖσα. εἰς τρό-  
πους πεντεκαίδεκα· δύν πρωτολύ-  
διος.

87. Λυδίου δὲ τρόπου σημεῖα, τὰ  
μὲν δύν τῇς λέξεως, τὰ δὲ κάτω  
τῇς αρούσεως·  
προσλαμβανόμενος· ἐλλειπὲς

5 καὶ ταῦ πλάγιον.

ἡ δὲ σχηματογραφία αὐτῶν καὶ τὰ  
όνδματα ἐγράφη ἐκάστης χορδῆς ὅ-  
πισθεν, ὅτε περὶ τόνων τὸν λόγον  
ἐποιούμεθα· ἀλλ' εἴπωμεν δὴ καὶ

10 τὰ ἐπίλοιπα.

1-5 = Anon §67 init (MSS:ABC)

1 δὲ om Anon τρόπου S et Anon, τρόποι P 4 ἐλλειπὲς Anon, ἐλλειπὲς S,  
ἐλλειπὲς P 5 ταῦ Anon, ταῦτα P, ταῦ S post 5 ea quae §11 inuenies una  
cum notis musicis exscripsit S 6-10 non habet S 8 τόνων τὸν scripsi,  
τόνωντῶν P (sed ante corr vov videtur habuisse; quod ipse in scribendo  
correxit), τὸν αὐτῶν Najock(pp.XIV et 20), quem olim secutus sum 7 ἐγρά-  
φη et 9 εἴπωμεν scripsi

#### NOTES:

\* 1. For lines 1-5, cf. §11, note 1.

\* 2. The reference in 6-9 must be due to the Byzantine 'redactor' who gave  
the Hagiopolites compilation its actual shape.

88. Διπλοῦς γάρ ὁ χαρακτήρ τῶν  
φθόγγων εἶληπται, ἐπειδὴ καὶ δι-  
πλῆν ἔχει τὴν χρῆσιν - ἐπὶ λέξεως  
δὴ καὶ αρούσεως - καὶ ὅτι ἐν τοῖς  
5 ἀσμασί ποτε μεσολαβεῖ καὶ κῶλα,

P: διπλοῦς γάρ ὁ χαρακτήρ τῶν  
φθόγγων εἶληπται· [ἐπειδή] καὶ δι-  
πλὴν ἔχει τὴν χρῆσιν· ἐπιλέξεως  
δ[ὴ καὶ κ]αρούσεως· καὶ ὅτι ἐν τοῖς  
ἀσμασι ποτὲ μεσολαβεῖ καὶ κῶλα,

καὶ διαφόρῳ χαρακτῆρι τότε ἀνάγκη  
χρήσασθαι. ἕδεν γάρ ἀρχὴν τῆς  
ἀναγνώσεως λήψεται τὸ μέλος, καὶ  
καταμηνύει ὡς ἐν ιρούσει τὴν χρῆ-  
10 σιν ἔχει, καὶ ὅτι οὐ δητῷ περι-  
λέληπται ἢ στέξις, ἀλλ' ἔστιν ἡ  
παρελκυσμὸς μέλους κατὰ τὰς τοῦ  
δητοῦ συλλαβάς ἡ μεταβολὴ ἐπὶ  
κῶλον μεσοιλαβοῦν ἡ ἐπαγόμενον.  
15 καὶ τὰ μὲν ἀνωθεν τῆς λέξεως 17r  
- διὰ γάρ φωνῆς ἀνωθεν ἢ λέξις  
μόνης - τὰ δὲ τῆς ιρούσεως κάτω-  
θεν, διὰ χειρῶν.

= Anon §68 (MSS:ABC)

1 γάρ non habent S et Anon 4 δὴ] γάρ S et Anon 9 κράσει P  
10-11 περιλέληπται P, περιεληπται S, παραλέληπται C, παραλέλειπται Anon (AB)  
12 παρελκυσμένον S 14 μεσοιλαβοῦσα S 17 μόνη P post 18 non dist P

καὶ διαφόρῳ χαρακτῆρι τότε ἀνάγκη  
χρήσασθαι. ἕδεν γάρ ἀρχὴν τῆς  
ἀναγνώσεως λήψεται τὸ μέλος καὶ  
καταμηνύει ὡς ἐν κράσει τὴν χρῆ-  
σιν ἔχει· καὶ ὅτι οὐ δητῷ περι-  
λέληπται ἢ στέξις· ἀλλ' ἔστιν ἡ  
παρελκυσμὸς μέλους κατὰ τὰς τοῦ  
δητοῦ συλλαβάς· ἡ μεταβ[ολὴ ἐπὶ] πῶ<sup>ν</sup>  
κῶλον μεσοιλαβοῦν· ἡ ἐπαγόμενον·  
καὶ τὰ] μὲν ἀνωθεν τῆς λέξεως·  
διὰ γάρ φωνῆς ἀνωθεν ἢ λέξις  
μόνη· τὰ δὲ τῆς ιρούσεως κάτω-  
θεν διὰ χειρῶν

#### NOTES:

\* 1. In the addition of γάρ in P (line 1) we recognize once more the 'redactor's hand; the word serves as a link between §88 and §87, 9-10.

89. Φθόγγοι καθέκαστον πάντα P: φθόγγοι καθέκαστον τρόπον  
τρόπον μελῳδούμενοί εἰσιν ὄκτω- πάντα μελῳδούμενοί, εἰσὶν ὄκτω-  
καίδεκα. καίδεκα + +

= Anon §69 init (MSS:ABC)

1-3 litteris rubris scripsit S τρόπον πάντα P ὄκτοκαίδεκα] ἸΙΙ S

XXIII 90. Τὰ μέλη ἡ ἀπλῶς ἡ κατὰ σύγ-  
κρασιν ιρουσομένων τῶν φθόγγων  
ἔξηχεῖται· ἡ δὲ σύγκρασις γίνε-  
ται συμφώνων ἡ διαφώνων ιρουσομέ-  
5 νων. καὶ τὴν μὲν τῶν διαφώνων  
σύγκρασιν φρᾶγμα καλοῦσι, τὴν δὲ  
τῶν συμφώνων συμφωνίαν· καὶ λαμ-

P: Τὰ μέλη ἡ ἀπλῶς ἡ κατασύγ-  
κρασιν ιρουσομένων τῶν φθόγγων  
ἔξηχεῖται· ἡ δὲ σύγκρασις γίνε-  
ται· συμφώνων ἡ διαφώνων ιρουσομέ-  
νων· καὶ τὴν μὲν τῶν διαφωνῶν  
σύγκρασιν φρᾶγμα καλοῦσι· τὴν δὲ  
τῶν συμφώνων, συμφωνίαν· καὶ λαμ-

βάνεται ἐπὶ μὲν τῶν ἀσμάτων ορᾶ-  
σις μόνη σύμφωνος, ἐπὶ δὲ τῶν  
10 μελῶν ἀμφότερα.

3 ἔξηχεται S 6 φρᾶγμα PS, φρύαγμα coniecit Vincent 10 μερῶν (vel με-  
λῶν?) secundum Vincent habet P, sed est μελῶν (etiam in S) ἀμφότερα PS,  
ἀμφοτέρα coniecit Vincent

TRANSLATION:

90. The melodies are made in such a way that the tones are produced either single or mixed, the mixture being either of consonant or of dissonant tones. The mixture of dissonant tones is called *Phragma* (?), the other is *Symphonia*. In songs, only consonance is accepted, in (*instrumental*) melodies both.

NOTES:

- \* 1. §§90-03 constitute Vincent's Fragment I (Notice... pp.260-63).
- \* 2. In line 6 (and in §§91-93 *passim*) Vincent corrects the strange φρᾶγμα of P (and of S!) into φρύαγμα. For the time being I have kept the reading of the two manuscripts; it may be an otherwise unknown *terminus technicus*.
- \* 3. 'Αμφότερα in 14 is somewhat loose, but not necessarily to be corrected.

91. Τῆς δὲ διαπασῶν ὁ μὲν πρῶτος P: τῆς δὲ διαπασῶν ὁ μὲν πρῶτος φθόγγος δύο συμφώνους οράσεις δέχεται καὶ τέσσαρα φράγματα. δέχεται, καὶ τέσσαρα φράγματα· καὶ δὲ δεύτερος δύο συμφώνους 5 καὶ τέσσαρα φράγματα· ἀλλὰ τὸ μὲν <ἐν> φρᾶγμα ταύτο ἐνὶ τῶν προειρημένων, τὰ δὲ τρία διάφορα. δὲ τρίτος συμφωνίαν μίαν καὶ τέσσαρα φράγματα· ὁ δὲ τέταρτος 10 κατὰ ἀγωγὴν συμφωνίαν μίαν καὶ ἀντιστρόφως κατὰ ἀνάλυσιν μίαν καὶ τρία φράγματα· ὁ δὲ πέμπτος διμοίως ἀντιστρόφως συμφωνίας δύο καὶ φράγματα κατὰ ἀνάλυσιν δύο 15 καὶ κατὰ ἀγωγὴν δύο.

2 συμφώνους S, συμφώνων coniecit Vincent  
οράσεις PS 3 φρυάγματα coniecit Vincent  
teleuton om P, habet S, ὁ δὲ δεύτερος δύο συμφωνίας καὶ τέσσαρα φρύαγμα-  
τα eleganter suppleuit Vincent 6 ἐν suppleui (πρῶτον Vincent)

βάνεται ἐπὶ μὲν τῶν ἀσμάτων, ορᾶ-  
σις μόνη σύμφωνος· ἐπὶ δὲ τῶν  
μελῶν ἀμφότερα·

ἀλλὰ τὸ μὲν φρᾶγμα ταύτο ἐπὶ τῶν προειρημένων· τὰ δὲ τρία διάφορα· δὲ τρίτος, συμφωνίαν μίαν καὶ τέσσαρα φράγματα· ὁ δὲ τέταρτος, ἀντὶ στρόφως· κατὰ ἀνάλυσιν μίαν καὶ τρία φράγματα· ὁ δὲ πέμπτος διμοίως ἀντιστρόφως συμφωνίας δύο καὶ φράγματα κατὰ ἀνάλυσιν δύο· καὶ κατὰ ἀγωγὴν δύο·

2 οράσεις coniecit Vincent,  
4 καὶ - 5 φράγματα per homoeo-  
teleuton (πρῶτον Vincent)

éντι scripsi, ἐπὶ PS, ἐστι voluit Vincent 10 lacunam suppleui eodem fe-  
re modo atque Vincent (p 261 not 3) 11 ἀνάκλησιν et 12 φρυάγματα con-  
iecit Vincent 13 an ἀντιστρόφως delendum? συμφωνίας PS, correxit Vin-  
cent

## TRANSLATION:

91. The first tone of the octave (a G F E D C B) admits two consonances (a-E and a-D) and four dissonances (a-G, a-F, a-C, a-B). The second tone (G), too, admits two consonances and four dissonances: one of these (G-a) is the same as one of the aforementioned (a-G), three are different. The third tone (F) has one consonance (F-C) and four dissonances. The fourth (E) has one consonance upwards (E-a) and, conversely, one downwards (E-B), and three dissonances. In a similar way, but oppositely, the fifth tone (D) has two consonances, but two dissonances downwards (D-C and D-B) and two upwards (D-E and D-F).

## NOTES:

- \* 1. The number of intervals is not constant: if a is used as base, there are 6 (2+4), G also gives 6 (2+4), but for F the figure is 5 (1-4), for E 5 (1+1+3), and for D 6 (2+2+2).
- \* 2. Commenting on P's omission of lines 4-5, Vincent rightly points out "que le manuscrit de l'Hagiopolite fourmille de ces omissions par δυοτοτέλευτον". On the strength of this observation one might be inclined to follow Vincent's reconstruction of lines 9-12 and to supply as follows:  
ο δὲ τέταρτος ἀντιστρόφως κατὰ <άγωγὴν συμφωνίαν μέλαν καὶ κατὰ> ἀνάλυσιν μέλαν καὶ τρία φράγματα.  
This, however, raises a problem; the function of the adverb ἀντιστρόφως. One possible solution would be that ἀντιστρόφως in line 13 is an inter-linear gloss on δύοτων, and that the adverb in its earlier occurrence serves to juxtapose the consonances κατὰ ἀγωγὴν and κατὰ ἀνάλυσιν.
- \* 3. In line 6, the common error of P and S seems to be a "majuscule error" (ΕΝΙ > ΕΠΙ).

92. Προσληφθείσης δὲ τῆς δευτέρας διαπασῶν συμφωνίας ἀλλα προσ-17νρας | διαπασῶν συμφωνίας, ἀλλὰ προστίθενται κράματα, τῆς τε διαπασῶν καὶ μετ' αὐτὴν τῆς διατεσσά-  
5 ρων καὶ διαπέντε καὶ δὶς διαπα-  
σῶν· τὰ δὲ ἄλλα φράγματά εἰσι ταύτα, τάσει διαφέροντα.  
τέθαινται· κρατήματα τῆς τε διαπασῶν· καὶ μετ' αὐτὴν τῆς διατεσσάρων καὶ διαπέντε· καὶ δὶς διαπασῶν· τὰ δὲ ἄλλα φράγματα εἰσὶ ταύτα τάσει διαφέροντα·

2 συμφωνίαν S ἀλλὰ PS, correxit Vincent 3 κράμματα S, κρατήματα P,  
correxit Vincent 5 διαπεντε] ε S 6 post δὶς διαπασῶν lacunam suspi-  
catus est Vincent 7 ταῦτα S φρυάγματα Vincent

## TRANSLATION:

92. If the second octave is added (to the one analyzed in §91), other mixtures arise, such as octave, octave + fourth, octave + fifth, and double octave. But the new dissonances are not different (from those described in §91), except in their extension (i.e. the *ambitus*, because of the added octave).

93. Πρὸς τὴν τῶν ἀσμάτων κροῦ-  
σιν λυσιτελεστέρα ἡ διαπασῶν,  
κράσει συμφωνιῶν περιττεύουσα  
καὶ πλεονεκτοῦσα καὶ τοῖς κομ-  
5 πισμοῖς ἴδιαν. τριτῆ δὲ τού-  
των ἡ διαφορά· ἡ γὰρ βαρειῶν  
πρὸς βαρείας, ἡ βαρειῶν πρὸς  
όξείας, ἡ ὄξειῶν πρὸς ὄξείας.  
οἱ δὲ τε τρόποι διαφέρουσιν ἔ-  
10 καστος ἐκάστου ἀπέχοντες τῇ δι-  
ατεσσάρων συμφωνίᾳ.

P: πρὸς τὴν τῶν ἀσμάτων κροῦ-  
σιν, λυσιτελέστερα ἡ διαπασῶν  
κράσει συμφωνιῶν περιττεύουσα·  
καὶ πλεονεκτοῦσα καὶ τοῖς κομ-  
πισμοῖς, ἴδιαν· τριτῆ δὲ τού-  
των ἡ διαφορᾶ· ἡ γὰρ βαρειῶν  
πρὸς βαρείας, ἡ βαρειῶν πρὸς  
όξείας, ἡ ὄξειῶν πρὸς ὄξείας·  
οἱ δὲ τε τρόποι διαφέρουσιν ἔ-  
καστος, ἐκάστου ἀπέχοντες τῇ δι-  
ατεσσάρων συμφωνίᾳ.]

1 κροῦσιν] οὖν κράσιν S 4 καὶ<sup>1</sup> om S (in fine lineae) 5 τρίτη S  
7 προβαρείας et 7-8 προόξείας S 9 δὲ τε'] διεκατέντε S

## TRANSLATION:

93. For the accompaniment of songs, the octave is more useful. This is due to its larger mixture of consonances, especially in the *Kompismoi*. Of these (i.e. the *Kompismoi*?) there are three different kinds: low tones go with low, or low with high, or high with high. As regards the fifteen *Tropoi*, these differ from each other in so far as they are situated at fourth distances (?).

## NOTES:

\* 1. The reading of S in 1-2 (οὖν κράσιν for κροῦσιν) reflects an inter-lineair correction in an ancestor manuscript:

οὖν  
κράσιν

\* 2. For κομπισμός (= repetition of tone at same pitch), see Najock 1972, pp. 162-63 and 172-74.

\* 3. Vincent seems to have understood τούτων in 5-6 as referring to the κράματα in §92,3. Why not to the percussional *Kompismoi*?

\* 4. Vincent's rendering of lines 9-11 makes the connection with the preceding more intimate than it is in the original: "Et, à ce propos, il est bon de rappeler que les 15 tropes se dépassent mutuellement trois à trois par intervalles de quarte".

XXIV 94. Φρουρῶν δὲ εὑρημά φασιν εἶναι P: [φρουρῶν δὲ εὑρημά φασιν εἶναι τὸν αὐλόν, διὰ τὸν Μαρσύαν καὶ τὸν αὐλόν· διὰ τὸν μαρσύαν καὶ "Ολυμποντικαὶ Σάτυροντ· εἰσὶ γάρ δῆλυμπον καὶ σάτυρον· εἰσὶ γάρ οὗτοι Φρύγες.

1 δὲ om S      2 μαρσίαν P, μαρσίης S      3 locus fortasse corruptus; an τὸν σάτυρον vel καὶ "Υαγνὺν legendum? vide annotationem

#### TRANSLATION:

94. It is said that the Aulos was invented by the Phrygians. For Marsyas, Olympos, and Satyros† were Phrygians.

#### NOTES:

- \* 1. §§94-95 constitute Vincent's Fragment II (Notice ... pp.262-65).
- \* 2. Marsyas and Olympos are well known Phrygians connected with the origin of auletics. Satyros is not known in this connection; but Marsyas and his father Hyagnis were Satyrs! One feasible emendation would therefore be to see the σάτυρον of P and S as a gloss in their model manuscript, explaining the name "Υαγνός. But it may also be that the text originally spoke of "Ολυμπον τὸν Σάτυρον - to distinguish him from ὁ Πιερικός "Ολυμπος, the shepherd mentioned in §§95, 7-20.

95. Σύριγγος εῖδη δύο· τὸ μὲν γάρ ἔστι μονοκάλαμον, τὸ δὲ πολυκάλαμον· ὃ φασιν εὕρημα Πανὸς τοῦ Αἰθέρος καὶ νύμφης Οἰνόης. καὶ δὲ μὲν μῆθος οὕτως, δὲ φυσικὸς λόγος τοιοῦτος·  
Κατὰ τὸν Πιερικὸν Ὀλυμπὸν καλαμῶνος ἀποξηρανθέντος ἀποθραυσθεὶς δόναξ εἰς συριγκοειδῆ χείλωσιν 18τ ὑπὸ τοῦ εἰσρέοντος ἀνέμου διὰ τῆς χειλώσεως λιγυρὸν ἦχον ἀπετέλει. οὕπερ δὲ ποιμὴν ἀκούσας ἤσθη, καὶ τοῦτον ἔκτειμῶν προσηνέσ τι καὶ ἐπακτικὸν ἀπεσύριζεν. διοίω δὲ τρόπῳ καὶ ἄλλους ὄργανοποιησάμενος τοὺς ἀναλογίαν ἔχοντας πρὸς τὸν εὔρημένον φθόγγον ἡρμόσατο· καὶ ποιήσας πεντασύριγγον ἐξηλώθη παρὰ τῶν ἄλλων P: σύριγγος εῖδη δύο· τὸ μὲν γάρ ἔστι μονοκάλαμον· τὸ δὲ πολυκάλαμον· ὃ φασὶν· εὕρημα παντὸς τοῦ αἰθέρους καὶ νύμφης οἰνόης καὶ δὲ μὲν μῆθος οὕτως· δὲ φυσικὸς λόγος τοιοῦτος κατὰ τὸν πιέρικὸν ὄλυμπον καλαμᾶ[νος] ἀποξηρανθέντος ἀποθραυσθεὶς δόναξ·] | εἰς συριγκοειδῆ χείλωσιν, ὑπὸ τοῦ εἰσρέοντος ἀνέμου, διὰ τῆς χειλώσεως, λιγυρὸν ἦχον ἀπετέλει· οὕπερ δὲ ποιμὴν ἀκούσας ἤσθη· καὶ τοῦτον ἔκτειμῶν, προσηνέσ τι καὶ ἐπακτικὸν ἀπεσύριζεν· διοίω δὲ τρόπῳ καὶ ἄλλους ὄργανοποιησάμενος τοὺς ἀναλογίαν ἔχοντας, πρὸς τὸν εὔρημένον φθόγγον ἡρμόσατο· καὶ ποιήσας πεντασύριγγον, ἐξηλώθη παρὰ τῶν ἄλλων

20 ποιειμένων. είτα τούτοις ἔντιμος  
ἡ χρῆσις γινομένη καὶ τοῖς λοι-  
ποῖς ἀγροίκοις, ὅστερον καὶ ἐν-  
ταῖς πολιτικαῖς ἀπολαύσεσι παρε-  
λαμβάνετο. οἱ δὲ τότε Μακεδόνων  
25 βασιλεῖς επὶ τὰ βασίλεια μετή-  
νεγκον αὐτῶν τὴν χρῆσιν, ὅστε  
μέλος ἐπικαλεῖσθαι Μακεδονικόν.  
Μετὰ δὲ τοῦτο "Ἄττις τὸ δεκαμά-  
λαμον αὐλοποιήσας ποιεινεκήν ἐ-  
30 κάλει σύριγγα, ποιήσας τὸ<ν> μὲν  
πρῶτον δεκαδάκτυλον" καὶ δακτύλῳ  
ἀφελῶν ἔως τεσσάρων, τοὺς λοιποὺς  
ἴσομήκεις ἐξαδακτύλῳ χειλώσας,  
τηρήσας τῇ τῶν παχῶν διαφορῇ  
35 τὴν τομήν, τὰ βουκολικὰ καὶ αἱ- 18v  
πολικὰ παρὰ τὸν Σαγγάριον ποτα-  
μὸν ἐσύρισε.

1 σύριγχος S, fortasse recte 3 εὔρεμα S παντὸς P 4 αἰθέρους P  
7 Πιερικὸν Vincent, πιέρικὸν P, ἐπί ὄρύκον S ut videtur 7-8 καλαμῆ-  
νος scripsi, καλαμόνος S, καλαμ[ ] P, καλάμου Vincent 8-9 ἀποθραυ-  
σθεὶς δόναξ S, ἀποθραυ[ ] P, ἀποθραυσθέντος τε coniecit Vincent 9 συ-  
ριγγοειδῆ Vincent κοιλάωσιν maluit Vincent 13 ἥσθη Vincent, ἥσθη PS  
14 ἐπακτικῶν S 15-16 ὄργανοποιησάμενος P et Vincent, ὄργανοποιησάμενος S  
16-17 ἔχοντες S 18 ἥρμόσατο Vincent, ἥρμώσατο P, ἥρμωσε S 18-19 παν-  
τασύριγχον S ante correcturam (correxit ipse) 20 ποιμένων P 21 γενο-  
μένη S 25 βασιλεῖς] ἥσθέντες βασιλεῖς S 25-6 μετήνεγ[καν αὐτ]ῶν sup-  
pleuit Vincent 26 ὅστε S, καὶ τὸ P 27 μέλος] + αὐτῶν P (et S supra lin)  
καλεῖσθαι S μακεδώνιον P, μακεδόνιον Vincent 28 δὲ om P 28-29 τὸ δέ-  
κα κάλαμον αὐλοποιήσας S, τόδε κάλομον αὐλοποιήσας P, τὸν δεκάλαμον αὐλὸν  
ποιήσας coniecit Vincent (p 264 n 1), fortasse τὸν δεκακάλαμον αὐλὸν ποι-  
ήσας scribendum 29 ποιεινεκὸν S 30 σύριγκα S post correcturam  
τὸν μὲν coniecit Vincent, τὸ μὲν PS 31 δακτυλον Perne, δακτύλ[ous] Vin-  
cent 32 τεσσάρων S, δὲ P et Vincent 33 ἐξαδακτύλῳ S, ἐ[ν] ἐκάστῳ ἐσχη-  
κέναι αὐ[τ]λῆψη coniecit Vincent 34 τηρεῖσθαι S τῇ τῶν] τ' αὐτῶν coniecit  
Vincent 34-35 παχῶν διαφορῇ τὴν τομήν scripsi, παχῶν διαφορὰ τὴν τιμὴν S,  
πη[ ]ᾶ τὴν τομήν P, πη[λικότητα καὶ] τομὴν coniecit Vincent 36 σαγγά-  
ριον S, σύριγχον P, Σύριγχον Vincent 37 ἐσύρισε coniecit Vincent, ἐσύ-  
ρισαν S, εὐσηρήσαν P

ποιμένων· είτα τούτοις ἔντιμος  
ἡ χρῆσις γινομένη· καὶ τοῖς λοι-  
ποῖς ἀγροίκοις· ὅστερον καὶ ἐν  
ταῖς πολιτικαῖς ἀπολαύσεσι, παρε-  
λαμβάνετο· οἱ δὲ τότε μακεδόνων  
βασιλεῖς ἐπὶ τὰ βασίλεια μετή-  
νεγκ[ον] αὐτῶν τὴν χρῆσιν καὶ τὸ  
μέλος αὐτῶν, ἐπικαλεῖσθαι μακεδώνιον·  
μετὰ τοῦτο ἄττις τόδε κά-  
λομον αὐλοποιήσας ποιεινεκήν ἐ-  
κάλει σύριγκα· ποιήσας τὸ μὲν  
πρῶτον, δεκαδάκτυλον· καὶ δακτύλῳ  
ἀφελῶν· ἔως δὲ τοὺς λοιποὺς  
ἴσομήκεις ἐ[ξαδακτύλῳ] χειλώσας,  
τηρήσας τῇ τῶν πη[χῶν διαφορῇ] 38  
τὴν τομήν, τὰ βουκολικὰ· καὶ αὐ-  
πολικὰ παρὰ τὸν σύριγχον ποτα-  
μόν, εὐσηρήσαν·

## TRANSLATION:

95. Of the Syrinx (*the shepherd's pipe*) there are two kinds: one of them consists of a single reed, the other of many. It is told that the latter was invented by Pan, son of Aither and the nymph Oenoe. But that is legend! The following is what really happened: In the days of the Pierian Olympos, a bed of reeds had dried up; a pole-reed had been broken with a rim like those of a Syrinx, and when the wind streamed across the edge, the reed gave forth a clear and sweet sound. Hearing this sound, the shepherd was delighted, cut off the reed, and produced a sound which was both soft and attractive. Having made other pipes after a similar fashion, he used those which conformed with the tone already found and made a five-reed Syrinx - for which he was zealously admired by his fellow shepherds. Later-on, the use (of this instrument) was honoured among the shepherds and the other peasants, and at last it was used for enjoyment in the towns as well. The Macedonian kings at the time introduced these instruments into their palace, whence the expression 'Macedonian Melos' is derived. Afterwards, Attis constructed the 'ten-reeder' and called it 'a shepherd's Syrinx'. He made its first reed ten fingers long, the next three were shortened by one finger's length each, and the rims of the remaining reeds were cut in such a way that they had the same length as the one which was six fingers long, ..... Having done all that, he played the tunes of cowherds and goatherds on his Syrinx at the banks of the Sangarios River.

## NOTES:

- \* 1. The Syrinx was probably spelled with -γν- in the model of S and P, cf. S in line 1, P and S in 9, S in 30, and P in 36.
- \* 2. In line 25, the ήσθέντες of S may have been an interlinear gloss in the model MS, to explain why these kings introduced a rural instrument into their palace. I have taken the αὐτῶν of S and P in 27 to be another gloss. Cf. also §94, note 2.
- \* 3. I hesitate as to the αὐλοποιήσας in 29. It may be a mistake, called forth by ὄργανοποιησάμενος in 15-16. Curiously enough, there is a compound word of the same type in §17,7-8 (σωματοποιηθῆναν). Is this a coincidence?
- \* 4. I still do not understand the details of Attis's δεκακάλαμον (28-35). Anyhow, the ἔξαδακτύλῳ of S in 33 in all likelihood takes us somewhat nearer to an understanding than Vincent was in 1847: Attis's instrument seems to have consisted of ten reeds, not of one reed with many holes.

96. Πᾶν δὲ ἀρμονικὸν διάστημα  
δριζόμενον αἰσθήσει τῇ δι' ἄκοής  
πέντε διαφοραῖς δργάνων ἀποκτυ-  
πεῖται φυσικῶς· διὸ καὶ εἰς πέν-  
τε μόνον καταδιήρηται τρόπους.  
ἔστι δὲ τὰ πέντε δργανα τάδε·  
σάλπιξ, αὐλός, φωνή, κιθάρα,  
πτερόν. δνόματα δὲ τῶν τρόπων·  
δώριος, ὁ βαρύτατος, σάλπιγγος·

P: πᾶν δὲ ἀρμονικὸν διάστημα  
δριζόμενον αἰσθήσει τῇ διακοής·  
πέντε διαφοραῖς δργάνων ἀποκτυ-  
πεῖται φυσικῶς· διὸ καὶ εἰς πέν-  
τε μόνον, κατὰδιείρηται τόπους·  
ἔστι δὲ τὰ πέντε δργανα, τάδε·  
σάλπιξ· αὐλός· φωνή· κιθάρα·  
πτερόν· δνόμ<α>τα δὲ τῶν τρόπων,  
δώριος, ὁ βαρύτατος, σάλπιξ·

10 φούγιος, ὁ μετ' αὐτόν, αὐλῶν· φούγιος ὁ μετ' αὐτῶν αὐλῶν·  
 λύδιος, ὁ καὶ μέσος, φωνῆς· λύδιος ὁ καὶ μέσος φωνῆς·  
 αἰόλιος, αἰθάρας· αἰόλιος αἰθάρας·  
 ιάστιος, πτεροῦ. ιάστιος πτερόν·  
 αἱ δὲ τῶν ὄργάνων τούτων ἐπὶ τὸ αἱ δὲ τῶν ὄργάνων τούτων ἐπὶ τὸ<sup>9</sup>  
 15 μᾶλλον καὶ ήττον διαφοραὶ τὸ ὑπὸ μᾶλλον, καὶ ήττον διαφοραὶ τὸ ὑπὸ,  
 καὶ ὑπὲρ ἐκάστη φαρίζονται. καὶ ὑπὲρ ἐκάστη φαρίζεται :-

3 an πέντε διαφόρους ὄργάνων legendum? 5 διήρηται S τρόπους S et Vincent,  
 τόπους P 9 ἡ S σάλπιγγος coniecit Vincent, σάλπιξ P et S  
 10 αὐτόν S et Vincent, αὐτῶν P αὐλόν in αὐλῶν (vel αὐλῶν in αὐλόν) cor-  
 rectit S 12 αἰθάρας S 13 πτεροῦ S et Vincent, πτερόν P; fortasse πτε-  
 ρῶν legendum 16 φαρίζονται scripsi, φαρίζονται S, φαρίζεται P et Vincent

## TRANSLATION:

96. Every harmonic interval, as defined by hearing is made to resound by means of five different instruments. This is why it (the *Harmonics*?) is divided into five *Tropoi*, only. The five instruments are the following: The *Salpinx* (*trumpet*), the *Aulos* (*flute*), the human voice, the *Kithara*, the *Pteron* (*shepherd's pipe?*). The names of the *Tropoi* are:

Dorian, the lowest one, for the *Salpinx*  
 Phrygian, the one which comes next, for the flutes  
 Lydian, the middle, for the human voice  
 Aeolian, for the *Kithara*  
 Ionic, for the *Pteron*.

The differences between these instruments as to higher and lower pitch give the *hypo-* and the *hyper-* to each (*Tropos*?).

## NOTES:

- \* 1. This paragraph is Vincent's Fragment III (Notice ... pp.264-267).
- \* 2. There are interesting parallels between §96 and the Anonymi II et III Bellermannii (Anon §§17 and 50, the latter = *Hagiopolites* §65).
- \* 3. For πτερόν (lines 8 and 13), see Vincent p.8, note 2.

XXV 97. 'Η σάλπιξ· τραγῳδία· παπίας· P: 'Η σάλ[πι]ξ· τραγῳδία· παπίας· μεσότριτος· αἰθαρῳδία· λύρα· ὀξύ- μεσότριτος· αἰθαρῳδία· λύρα· ὀξύ-  
 τονον· κωμῳδία· αἰθάρα· δώριος· τονον· κωμῳδία· αἰθάρα· δώριος·  
 φούγιος· πλυνθίον· σάλπιξ· αὐλός· φούγιος· πλυνθίον· σάλπιξ· αὐλός·  
 5 ὅδραυλις· αἰόλιος· πτερόν· αἰθάρα· ὅδραυλις· αἰόλιος· πτερόν· αἰθάρα·  
 σύριξ· λύδιος· φωνή· ιάστιος· πτε- σύριξ· λύδιος· φωνή· ιάστειος· πτε-  
 ρόν:-

## NOTES:

- \* 1. This is Vincent's Fragment IV (Notice...p.266). It is only transmitted in P.
- \* 2. As already suggested (§13 note 1) this strange list of instruments, genres, and modes may have been a marginal entry in the model manuscript. The bizarre order - which seems to elude any reasonable systematization - may perhaps be due to a peculiar (diagrammatic?) arrangement in the model of P.

XXVI 98. Ἀγωγὴ προσεχῆς ἀπὸ τῶν βα-  
ρυτέρων δόσις, ἀνάλυσις διὰ τὸ ἐν-  
αντίον· ἡ κίνησις φθόγγων ἐκ βα-  
ρυτέρου τόπου ἐπὶ τὸ δεύτερον,  
5 ἀνάλυσις δὲ τούναντίον. τὰς ἀγω-  
γὰς καὶ τὰς ἀναλύσεις δεῖ μελψ-  
θεῖν ἐκτείνοντας μᾶλλον καὶ μὴ  
βραχύνοντας τοὺς φθόγγους· ἡ γὰρ  
ἔμμονος αὐτῶν καὶ ἐπιμηκεστέρα  
10 ἐκφώνησις ἀκριβεστέραν τῇ ἀκοῇ  
χαρίζεται τὴν κρίσιν.

= Anon §78 (MSS:ABC)

2-3 ἀνάλυσις διὰ τὸ ἐναντίον S, ἀνάκλησις διὰ τὸ ἐναντίον P, ἀνάλυσις δὲ τὸ  
ἐναντίον ABC, seclusit Anon (Bellermann) 3-4 βαρυτέρων P 7 ἐκτείνων  
τὰς P ante correcturam (accentum grauem linea transversa deleuit ipse in  
scribendo) 10 ἀκριβεστέρα P

## NOTES:

- \* 1. I have edited this paragraph after the principles applied to the other sections taken from the Anonymi Bellermannii (§§56 sqq.), my aim being to reconstruct the common ancestor of S and P.
- \* 2. In S, the text is found on fol. 95v, immediately after §89 (= Anon §69 init.).

XXVII 99. Προσλαμβανόμενος· ὅ κάτω  
γραμμήν ἔχον καὶ ἡτα.  
ὑπάτη ὑπατῶν· μῆν ἀνεστραμμένον  
καὶ ἡ ἐλλιπέδες.  
5 παρυπάτη ὑπατῶν· ἡ ἀνεστραμμένον  
καὶ ἡ ἐλλιπέδες ὑπτιον.  
ὑπατῶν διάτονος· ζῆτα ἐλλιπέδες  
καὶ ταῦ πλάγιον.

P: Προσλαμβανόμενος, ὅ ὅ· κάτω  
γραμμήν ἔχον ἡ  
ὑπάτη ὑπατῶν μῆν ἀνεστραμμένον  
καὶ ἡ ἐλλιπέδες.  
παρυπάτη ὑπατῶν ἡ ἀνεστραμμένον  
καὶ ἡ ἐλλιπέδες ὑπτιον.  
ὑπατῶν διάτονος, ζῆτα ἐλλιπέδες  
καὶ τὸν πλάγιον.

ὑπάτη μέσων· γάμμα ἀνεστραμμένον  
10 καὶ γάμμα ὄρθόν.  
παρυπάτη μέσων· Ἐ ἐλλιπές καὶ  
γάμμα ἀνεστραμμένον.  
μέσων διάτονος· Φ καὶ δίγαμμα.  
μέση· στιγμὴ καὶ σίγμα.  
15 τρίτη συνημμένων· Ρ καὶ σίγμα  
ἀνεστραμμένον.  
συνημμένων διάτονος· μῦ καὶ πῖ  
καθειλκυσμένον.  
νήτη συνημμένων· ιῶτα ὄρθόν καὶ  
20 ἔ πλάγιον.  
παράμεσος· ὄν καὶ ἄ.  
τρίτη διεζευγμένων· ἔ καὶ ἔ ἀν-  
εστραμμένον.  
διεζευγμένων διάτονος· ιῶτα ὄρ-  
25 θόν καὶ ἔ πλάγιον.  
παράμεσος· ἔ καὶ πῖ 19v  
πλάγιον.  
τρίτη ὑπερβολαίων· ἔ τετράγωνον  
καὶ π ἀνεστραμμένον.  
30 ὑπερβολαίων διάτονος· ὁ τετρά-  
γωνον καὶ ἔ.  
νήτη ὑπερβολαίων· ὁ πλάγιον καὶ  
ἡτα ἀμελητικόν.  
= Alypi genus diatonum cap 2 (Jan p 370)

1 praeif 'Υπολυδέου σημεῖα κατὰ τὸ διάτονον γένος Alyp, ὑπολυδέου τρόποι, ση-  
μεῖωσαι κατὰ τὸ διάτονον γένος S (colore rubro) ὁ ] ou Alyp, φ S (o supra  
lin addita) 2 καὶ om P ἡτα] ἦ P (Talia passim inuenies, videsis  
textum quem e codice P supra transscrisimus) 3 ὑπάτων Alyp, ὑπάτων S  
4 ἦ ἐλλιπές] ἦ ἐλιπές P, νῦ ὁμοίως S ἐλλιπές Alyp (etiam in seqq; ἐ-  
λιπές semper P) 5 ὑπάτων Alyp, ὑπάτων S ἦ ] λάβδα Alyp (sed ἄλ-  
φα cod M) 6 ἦ ἐλλιπές ὑπτιον] νῦ πρινὲς S ὑπτιον] πλάγιον Alyp  
7 ὑπάτων Alyp (sed ὑπάτων hic habet S) 8 ταῦ] τὸν P 9 γάμμα] Ἐ Ἅ P  
ἀπεστραμμένον Alyp 12-13 ανεστραμμένον. μεσων adhuc vidit Perne  
13-16 om S 14 στιγμὴ] σίγμα Alyp 19 ὄρθόν S, om P et Alyp  
19-20 post 23 praebet S 21 om S 22 διεζευγμενων adhuc vidit Perne  
τρίτην διεζευγμένον S ἔ ] ἔ ὄρθόν S 24-25 om S ὄρθόν om P et A-

lyp, suppleui ex 19 (sed fortasse hic et illic delendum) διεξευγμε-  
 νων (24) et καὶ (25) adhuc vidit Perne 28 ἔ ] εὐ Alyp 28-29 om S  
 31 ζ ] ζ ἐλλιπές S 33 ἀμελητή S Post 33 Alypi genus diatonum 3 pae-  
 bet S (cum notis musicis); deinde sequuntur Ptolemaei Harm III,5 et 6

## NOTES:

- \* 1. The heading in S reads σημεῖωσαι for σημεῖα. Evidently, the word was abbreviated in the model manuscript. The same error is repeated in the heading to the following paragraph of S (Alypius, Diaton. 3).
- \* 2. The Hypolydian diatonic scale is provided with its notational signs in S.
- \* 3. For an interpretation of ὑπάτων (S, lines 3 and 5), see Jan's introduction to the *Musici Scriptores Graeci*, p. XXV.

## XXVIII

100. 'Ιστέον οὖν ὡς μὲν λόγος ἀρ-Ρ: 'Ιστέον οὖν ὡς μὲν λόγος ἀρ-  
 χαῖος τῶν θύραθεν' 'Ο παρ-'Ἐλλησι θρυλλούμενος Πυθαγόρας παρά τινι  
 χαλκείῳ πολιτικῷ καθεζόμενος καὶ  
 5 διαφόρων ἥχων ἐξ αὐτοῦ ἀκούων -  
 καὶ ταῦτα μιᾶς ὅλης οὖσης τῆς  
 χαλκευομένης, καὶ τοῦ αὐτοῦ καὶ  
 ἐνὸς σκεύους τοῦ χαλκεύοντος,  
 καὶ τοῦ αὐτοῦ ἄκμανος ἐν φπερ  
 10 ἡλαύνοντο τὰ χαλκευόμενα - σκοπὸν  
 ἔθετο τὴν τῶν ἀποτελουμένων ἥχων  
 διαφορὰν ὅθεν γίνεται καταλαβεῖν.  
 καὶ δὴ πολλὰ σκοπήσας καὶ ἐρευ-  
 νήσας, τέλος πρὸς τὰς σφαίρας ἐν-  
 15 ἐσκηψεν' ἄς καὶ σταθμώσας καὶ εύ-  
 ρών τὴν μὲν βαρυτέραν τὴν δὲ κου-  
 φοτέραν, ἔγνω ἐντεῦθεν προΐεσθαι  
 τὸ τῶν ἥχων διάφορον, καὶ ἀναλό-  
 γως τὴν τε κουφότητα τῶν φωνῶν  
 20 τῇ τῶν σφαιρῶν ἔχειν βαρύτητι  
 καὶ τὰ ἀπηχήματα.....

2 post θύραθεν non distinxit, sed post 3 θρυλλούμενος comma posuit Vincent  
 3 θρηλλούμενος P 4 κείω πολιτικῷ in rasura P 10 ἡλαύνοντα P  
 11 et 19 lacunas suppleuit Vincent 20 τῇ coniecit Ebbesen, ἔγους P  
 20 σφαιρῶν adhuc vidisse Vincent crederes, quippe qui σφαιρῶν [ἀντιπαθεῖν] e-

didit; Perne vero solummodo οφ (id est σφ) vidit; de illo ergo dubitandum 20 ἔχειν suppleuit Ebbesen, ἀντιπαθεῖν Vincent 21 τὰ ἀπηχήματά [διάφορα γεγενήσθατ] ἐξ αὐτοῦ Vincent

## TRANSLATION:

100. NB. An old story of pagan origin runs as follows: Pythagoras, well-known from Greek lore, was sitting near an urban smithy and heard different sounds coming from it - albeit one single material was being worked on (*the copper*), and one and the same utensil performed the work (*the hammer*), and the objects were being forged on the same anvil. Therefore he decided to find out what made the sounds different; and his research at last led him to investigate the bowls (*the vessels on which the copper-smith was working*). He weighed them, and finding that one was heavier than the other he realized that this was the reason why their sounds were different: there was, in fact, a correspondence between the lightness of the sounds and the heaviness of the bowls, and between the resonances.....

## NOTES:

- \* 1. §§100-105 constitute Vincent's Fragment V (Notice... pp.266-73).
- \* 2. For §§100-101, see my article in CIMAGL 31A, Copenhagen 1979, pp.1-9 ("A Neglected Version of the Anecdote about Pythagoras's Hammer Experiments").
- \* 3. Lines 1-3 are evidently the product of a Christian mind (οἱ θύραθεν and "Ελληνες!").
- \* 4. In my article on "The Manuscript Tradition of the Hagiopolites" (Texte und Untersuchungen Bd. 125, Überlieferungsgeschichtliche Untersuchungen, hrsg. v. Franz Paschke, Berlin 1981, pp.465-78) I quoted (on p.473) a short version of this anecdote - from S, fol.99v (in the treatise Πόσοι ήχοι). I have since then found an even more interesting version, again in S (fol. 34v, in the treatise Τί ἔστι προσωδία). It reads as follows: Εἰ θέλεις μαθεῖν καὶ τὴν ἀρχαὶ ογνωνεῖαν, πῶς γεγόνασιν ήχοι παρὰ τῆς ἀρχῆς. καθὼς ἡκούσθη μὲν παρὰ τῶν προτέρων ἡμῶν διδασκάλων, καὶ εὖς παλαιὰ βιβλία ενδρον οὕτως. ὅτι λέγουσι τινὲς, ὅτι ὁ σοφὸς παρ' ἔλλησι πυθαγόρας μετὰ τῶν ἡμερῶν παρά τινος χαλκοῦ χαλκεύων, καὶ οὕτος ὁ πυθαγόρας καθεζόμενος, καὶ τοὺς ήχους τῶν χαλκευομένων ἔξακρούμενος, λαβὼν τὸ ήθος, καὶ τὸν κτύπον τῆς φωνῆς κατὰ διάνοιαν, κατεσκεύασεν αὐτὸς ὅργανον διὰ τεσσάρων χορδῶν, καλέσας τοῦτο μουσικὴν. καὶ ἐκ τούτου κατ' ὀλίγον ἀνεβίβασεν αὐτὸν εἰς καβάλια λε'. καὶ ἔξεθετο τοὺς ήχους ἐξ αὐτῶν, ὥστε καθ' ἐν καβάλιον εἰς ήχον. "Ετεροι δὲ λέγουσι κατασκευασθεῖσαν τὴν μουσικὴν παρὰ τοῦ ὄρφεως etc.
- \* 5. The lacuna after line 21 is due to a physical damage at the bottom of fol. 19. Vincent's attempt to restore the text presupposes that it continues on fol. 20r; but here the first word (the letter ξ) implies that a red initial letter (E) has been left out in the rubrication. Consequently, ἐξ αὐτοῦ is the beginning of §101. I have found no evident way to repair the end of §100.

XXIX 101. Ἐξ αὐτοῦ καὶ αὐτὸς παρορ- P: |<Ε>ξ αὐτοῦ καὶ αὐτὸς παρορ-  
μηθεὶς κατεσκεύασεν ἀπὸ χορδῶν 20r μηθεὶς κατεσκεύασεν ἀπὸ χορδῶν  
τεσσάρων καὶ μόνον ὅργανον ὁ κέ- τεσσάρων καὶ μόνον ὅργανον, ὁ κέ-

ιληκε μουσικήν. είτα ἀνεβίβασεν  
5 αὐτὸς είς ἐπτά χορδάς, καθώς ὁ  
Πυθαγορικός Φιλόλαος ἐν τινι πο-  
νήματι αὐτοῦ πρός τινα γυναῖκα  
Πυθαγορείαν ἐκτιθέμενος γράφει,  
περὶ τῆς ἀρμονικῆς φιλοσοφίας  
10 οὕτω φάσκων· τὸ ἀρμονίας μεγέθους  
συλλαβῆς δι' ὅξεία μείζων τὰς συλ-  
λαβὰς ἐπείγητ.

ιληκε μουσικήν· είτα ἀνεβίβασεν  
αὐτὸς είς ἐπτά χορδάς· καθώς ὁ  
Πυθαγορικός φιλόλαος, ἐν τινι πο-  
νήματι αὐτοῦ· πρός τινα γυναῖκα  
Πυθαγορείαν ἐκτιθέμενος γράφει·  
περὶ τῆς ἀρμονικῆς φιλοσοφίας,  
οὕτω φάσκων· ἀρμονίας μεγέθους  
συλλαβῆς δι' ὅξεία μείζων τὰς συλ-  
λαβὰς ἐπείγητ.

10-12 corrupta Philolai verba apud Nicomachum (Enchiridion p 252,17-19 Jan)  
sic traduntur: ἀρμονίας δὲ μέγεθος συλλαβὴ καὶ δι' ὅξειαν. τὸ δὲ δι' ὅξειαν  
μεῖζον τὰς συλλαβᾶς ἐπογδόψ

#### TRANSLATION:

101. Stimulated by this observation he then made an instrument by means of no more than four chords and gave it the name 'Mousike'. Later-on he raised the number of chords to seven, as Philolaos the Pythagorean expounds in a work of his addressed to a Pythagorean woman. Philolaos writes the following about the theory of harmonics: "The size of the Harmonia (the octave) equals Syllabā (fourth) plus Dioxeián (fifth); the Dioxeián is an Epógdoon (a whole tone) greater than the Syllabā".

#### NOTES:

- \* 1. I have left the Philolaos quotation in its corrupt state, not knowing what the text looked like when it reached the tradition of P.
- \* 2. It is interesting to see how the word ἀνεβίβασεν (line 4) was transplanted from this Ancient passage into the Byzantine tradition (Hagiopolites §6,20 and the text quoted in §100 note 4).

102. Πρὸς δὲ σαφῆνεται σχηματισ- P: πρὸς δὲ σαφῆνιαν σχηματισ-  
τέον οὕτως· ὑπάτη, παρυπάτη, ὑ- τέον οὕτως ὑπάτη· παρυπάτη· ὑ-  
περμέση, μέση, παραμέση, παρανή- περμέση· μέση· παραμέση· παρανή-  
τη, νεάτη. τη· νεάτη:-

5

սաբան	սաբան	ուսուած	ուսուած	սաբան	սաբան	սաբան	սաբան
-------	-------	---------	---------	-------	-------	-------	-------

#### TRANSLATION:

102. The following figure should make this more clear: Hypate, Parhypate, Hypermese, Mese, Paramese, Paranete, Neate.

XXX 103. 'Ιδοὺ τοίνυν ἐπτάχορδον ὅρ-Ρ: 'Ιδοὺ τοίνυν ἐπτάχορδον ὅρ-γανον. ἡ τοίνυν τρίτη χορδὴ καὶ ὑπερμέση λεγομένη πρὸς τὴν πρώτην καὶ ὑπάτην ὄνομαζομένην τὸν 5 ἐπίτριτον λόγον ἔχει, ὃν καὶ συλλαβὴν ἀποκαλοῦσιν· ἐπὶ.....ητέον· οὐδὲ γάρ ἄλλως ἔχει εἰ μὴ ἐκ τῶν ἀριθμῶν· οἷον ὁ τέ-20νει μὴ ἐκ τῶν ἀριθμῶν· οἷον ὁ τέταρτος πρὸς τὸν τρίτον ἐπίτριτος· 10 ἐπίτριτος λέγεται οὗτος, καθότι ἐπιφέρεται ἡμέν καὶ τὸ τρίτα ὅλον καὶ τὸ τρίτον αὐτῶν τὸ ἔν· ἀρκεῖ γάρ οὗτος εἰς τὸ τοῦ ἐπιτρίτου παράδειγμα. ἐξ αὐτοῦ δὲ τοῦ 15 ἀριθμοῦ ἐπιγινώσκεται καὶ ὁ ἐπίτριτος φθόγγος, ὃν αἱ χορδαὶ τῆς μουσικῆς καὶ τῶν λοιπῶν ὄργάνων ἀποτελοῦσι τῇ τοῦ ἐβδόμου χορδῆς ὄργάνου· ὅστε δῆλον γε-20 νέσθαι, οἷα φθόγγων ἀναλογία ἐστὶν ἐν αὐταῖς.

5 [ἔχει λόγον] suppleuit Vincent, sed aliter legendum esse docent vestigia litterarum 5-6 ἐπὶ [τρίτα γάρ καὶ ἐν συλληπή]τέον suppleuit Vincent, sed vide annotationem 11 τὸ τρίτα ὅλον coniecit Vincent, τῶν τρίτα ὅλων P 12-13 ἀρκεῖ P, ἀρκεῖ coniecit Vincent; vide annot 13 τὸ τοῦ scripsi, τὸ πους P, τόπους Vincent 16 ὃν Vincent, ὃν P 18 τῆς coniecit Vincent qui pro 16 ὃν - 19 ὄργάνου haec maluit: 'ον αἱ μέσαι χορδαὶ τῆς μουσικῆς καὶ τῶν λοιπῶν ὄργάνων ἀποτελοῦσι τῆς ἐβδόμης τοῦ ὄργάνου χορδῆς; locus vero aliter fortasse restituendus, vide annotationem

#### TRANSLATION:

103. This is thus the instrument with seven chords. The third chord, the so-called Hypermese, has an Epitrite ratio to the first, the one also called Hypate. To denote the Epitritos they use the terms Syllabé; (but one should rather say Epitritos?), since the ratio (between the chord) can only be expressed "from the numbers" (i.e. mathematically). Take for instance Epitritos = 4:3. This (ratio) is called ἐπίτριτος, because one third of the three is added (ἐπιφέρεται) to the total of three. This example of Epitritos will suffice (?). From the number itself also the sound of Epitritos has been realized, the sound produced by means of the chords of the Mousike and the other (stringed) instruments. In this way it becomes clear how the proportions of sounds are in the chords.

γανον' ἡ τοίνυν τρίτη χορδῆς καὶ ὑπερμέση λεγομένη πρὸς τὴν πρώτην καὶ ὑπάτην ὄνομαζομένην, τὸν ἐπίτριτον [λόγον] γιον ἔχει, ὃν καὶ συλλαβὴν ἀποκαλοῦσιν· ἐπὶ [c 10 litt ητέον· οὐδὲ γάρ ἄλλως ἔχει εἰ μὴ ἐκ τῶν ἀριθμῶν· οἷον ὁ τέταρτος πρὸς τὸν τρίτον, ἐπίτριτος· ἐπίτριτος λέγεται οὗτος, καθότι ἐπιφέρεται μὲν καὶ τῶν τρίτα ὅλων· καὶ τὸ τρίτον αὐτῶν τὸ ἔν· ἀρκεῖ γάρ οὗτος εἰς τὸ πους ἐπιτρίτου παράδειγμα· ἐξ αὐτοῦ δὲ τοῦ ἀριθμοῦ, ἐπιγινώσκεται καὶ ὁ ἐπίτριτος φθόγγος· ὃν αἱ χορδαὶ τῆς μουσικῆς· καὶ τῶν λοιπῶν ὄργάνων· ἀποτελοῦσι τῇ τοῦ ἐβδόμου χορδῆς ὄργάνου· ὅστε δῆλον γε- νέσθαι οἷα φθόγγων ἀναλογία, ἐστὶν ἐν αὐταῖς·

], ητέον· οὐδὲ γάρ ἄλλως ἔχει εἰ μὴ ἐκ τῶν ἀριθμῶν· οἷον ὁ τέταρτος πρὸς τὸν τρίτον, ἐπίτριτος·

ἐπίτριτος λέγεται οὗτος, καθότι

ἐπιφέρεται μὲν καὶ τῶν τρίτα ὅλων·

καὶ τὸ τρίτον αὐτῶν τὸ ἔν· ἀρ-

κεῖ γάρ οὗτος εἰς τὸ πους ἐπιτρί-

του παράδειγμα· ἐξ αὐτοῦ δὲ τοῦ

ἀριθμοῦ, ἐπιγινώσκεται καὶ ὁ ἐπί-

τριτος φθόγγος· ὃν αἱ χορδαὶ τῆς

μουσικῆς· καὶ τῶν λοιπῶν ὄργάνων·

ἀποτελοῦσι τῇ τοῦ ἐβδόμου χορ-

δῆς ὄργάνου· ὅστε δῆλον γε-

νέσθαι οἷα φθόγγων ἀναλογία,

ἐστὶν ἐν αὐταῖς·

#### NOTES:

- \* 1. Vincent's solution in lines 4-5 is not convincing. It is far too long, and goes against the clear accent of P in 4. Besides, the letter of which the right part can be discerned before  $\eta\tau\acute{e}\sigma$ , can hardly be a  $\pi$ ; maybe rather a  $\rho$ . In the actual context it would be tempting to look for an  $\acute{\epsilon}\pi\acute{e}-\tau\acute{r}\iota\tau\sigma$ . Perhaps  $\acute{\epsilon}\pi\acute{e}[\tau\acute{r}\iota\tau\sigma\mu\ddot{\alpha}\lambda\lambda\sigma]\eta\tau\acute{e}\sigma$  or something similar?
- \* 2. In 11, Ebbesen, suggests to read  $\mu\acute{e}\tau\acute{a}$  for  $\mu\acute{e}\nu\acute{a}$ . This seems to make sense, with  $\tau\acute{o}\tau\acute{r}\iota\tau\sigma\mu\acute{u}\tau\acute{u}\nu$  as nominative. But in such dubious surroundings it is better to suspend any decision. Cf. also §104,6-7.
- \* 3. I do not understand  $\acute{\alpha}\rho\kappa\acute{e}\tau$  -  $\pi\alpha\acute{r}\acute{a}\delta\acute{e}\iota\gamma\mu\alpha$  (12-14), but I am sure that Vincent is wrong: "aussi figure-t-il (i.e. l' $\acute{e}$ pitrite), dans les trait $\acute{e}$ s d'arithm $\acute{e}$ tique, en t $\acute{e}$ te de *Tableau des rapports  $\acute{e}$ pitrites*"(!)
- \* 4. The corrupt passage in 18-19 may be an ill-placed and distorted gloss on  $\tau\acute{h}\sigma\mu\acute{o}\sigma\iota\kappa\acute{h}\sigma$  (16-17):  $\eta\tau\acute{t}\sigma\tau\acute{o}\mu\acute{u}\acute{\epsilon}\pi\tau\acute{a}\chi\acute{o}\rho\acute{d}\sigma\mu\acute{o}\acute{o}\rho\acute{g}\acute{a}\nu\acute{o}\nu$ . Ebbesen, to whom I owe this elegant solution, points out that a  $\zeta$  in the model of P would make the mistake  $\acute{\epsilon}\beta\delta\acute{o}\mu\acute{o}\mu$  understandable.

104. Ἡ μέντοι μέση χορδὴ πρὸς τὴν τρίτην χορδὴν τοῦ δργάνου τὸν ἐπόγδοον κέκτηται λόγον· καὶ γὰρ δὲ ἐννέα ἀριθμὸς πρὸς

5 τὸν δικτὼ τὸν αὐτὸν ἔχει λόγον·  
ἔπιν γάρ τὸν δικτὼ ἔχει καὶ τὸ  
ὅγδοον αὐτοῦ ἥτοι τὸ ἐν. ἐξ δικ-  
τὼ γάρ καὶ ἐνὸς συνίσταται ὁ  
ἔννεα διοικητός.

5 ὀκτώτονον P, correxit Vincent  
τὸν ὀκτώ coniecit Vincent, τῷ ὀκτώ  
6-7 τῷ ὅγδοον Vincent, τὸν ὅγδοον P

P: ή μέντοι μέση χορδῆ, πρὸς  
τὴν τρίτην χορδὴν τοῦ ὄργανου  
τὸν ἐπόγδοον, κέκτητας λόγον·  
καὶ γὰρ ὁ ἐννέα ἀριθμὸς πρὸς  
τὸν ὄκτωτονον αὐτὸν ἔχει λόγον·  
ἐπεὶ γὰρ τῶν ὄκτων ἔχει καὶ τὸν  
ὅγδοον αὐτοῦ, ἦτοι τὸ ἔν· ἐξ ὄκ-  
τῶ γὰρ καὶ ἐνὸς συνέστατας ὁ  
ἐνέα ἀριθμός·

#### TRANSLATION:

104. The middle chord has a 9:8 ratio ( $\epsilon\pi\delta\gamma\delta\delta\omega\lambda\delta\gamma\omega$ ) to the third chord of the instrument (the *Hypermeše*). For 'nine' has this relation to 'eight', being one eighth of eight, i.e. one, more than eight - since 'nine' consists of 'eight' plus 'one'.

105. Ἡ μέση χορδὴ πρὸς τὴν πρώτην καὶ ὑπάτην λεγομένην τὸν ἡμιόλιον ἐπιφέρεται λόγον, ὃν καὶ διέξειαν ὀνόμασε κατὰ τοὺς λόδιοὺς τῆς ἀρμονίας. Ἡμίολιος δὲ ἀριθμός ἐστιν ὃ ἐννέα πρὸς τὸν

ἥ μέση χορδῆ πρὸς τὴν πρώτην, καὶ ὑπάτην λεγομένην, τὸν ἡμιόλιον ἐπιφέρεται λόγον· ὅν καὶ διεδείκεν ὡνόμασε κατὰ τοὺς λόγους τῆς ἀρμονίας ἡ[μ]ύολος δὲ ἀριθμὸς ἐστὶν· δὲ ἐννέα πρὸς [τὸν]

### Reliqua desiderantur

4 διόξειν P, idest διοξειδῶν 5 ἡμίολος retinendum an potius ἡμιόλιος legendum? τὸν suppleui, τὸ vidit (?) Vincent 7 sq lacunosus desinit P; alii alia suppleuerunt, utpote [καθότι] σὺν τῷ ὅλῳ ἦτοι τῷ ἔκτῳ ἐλ[λεῖπον τὸ ἡμισυ αὐτοῦ ἦτοι τὸ τρία παραθετέον.] Vincent, [δισότι] σὺν τῷ ὅλῳ ἦτοι τῷ ἔκτῳ (nisi in ἐξ corrigendum) ἔχ[ει καὶ τὸ ἡμισυ αὐτοῦ, ἦτοι τὸν (vel τὰ) τρία.....] Ebbesen. Cui pro innumerabilibus fere beneficiis auxilioque in locis corruptis emendandis hīc quoque gratias agere statui, vide app et annot §§1-105

#### **TRANSLATION:**

105. To the first chord, the so-called Hypate, the middle chord has a 3:2 ratio ( $\eta\mu\sigma\lambda\omega\lambda\gamma\sigma\sigma$ ), which he (*Pythagoras?*) called Dioxéian "in accordance with the proportions of harmonics". Hemiolios as a number is  $\frac{9}{6}$  [, since it (nine) contains half of the 'six', i.e. 'three', together with its total of six .....]

#### NOTES:

- \* 1. the *variatio sermonis* displayed in §§103-05 seems strangely akin to what we have met in the Byzantine paragraphs, e.g. §§ 6 and 35.
- \* 2. In 1973 I copied what was to be seen of the letters and accents at the lacuna in line 7. Here is a photocopy of my note:

These traces fit badly to Ebbesen's δύστη; they go better with Vincent's καθότη - a reading which is supported by the parallel in §103,10.

INDEX OF PROPER NAMES (COMPLETE)  
AND OF TERMS (SELECTIVE)

NB. An asterisk indicates that the word is found in the paragraphs which contain Ancient musical theory (§§ 11 and 56-105)

\* Ἀγιοπολίτης 1,1 6,22-23 36,7-8

\* ἀγωγή 91,10,15 98,1,5-6

\* αἰδόλιος 96,12 97,5

\* Αἰθήρ 94,4  
αἰπολικός 95,36-37

ἄκρον 21,3

\* ἀναλογία 95,16

\* ἀνάλυσις 91,11,14 98,2,5,6  
ἀνάσταμα 14,6  
ἀνάσταμαν, ἐνειλητικόν 18,16-17

ἀνατρίχισμα(v) 18,16,25-26 22,10  
ἀντικένωμα 22,11

ἀπέσω ἔξω 18,12

ἀπήχημα 32,25

ἀπόδερμα 22,10-11

ἀπόθεσις 33,13-14

\* ἀποκτυπέω 96,3-4  
ἀπόρροια 10,8 16,3-4

ἀπόστροφος 14,3,4-5 16,7  
18,6,36,38 22,9 26,1,7,12,16,23  
see also δύο ἀπόστροφοι

\* ἀποσυρίζω 95,14  
ἀποτέλεσμα 34,8-9

\* ἀρμονία (dor) 101,10(app) cf 105,5

\* ἀρμονικός 96,1 101,9  
ἀρχή 7,2 33,12

ἀρχοματ 3,2 7,3 33,14,19

ἀσμα 6,13,21 21,1 35,46

\* " 90,8 93,1  
ἀσματικός 15,12,15

\* Ἀττις 95,28

\* αὐλοποιεών 95,29

\* αὐλός 96,7,10 97,4  
βαρεῖα 18,28,35,37 22,9  
βαρυνόμενος, see πνεύματα

βαρύς, see ἥχος βαρύς

\* " 93 *passim* 96,9 98,1-4

\* βουκολικός 95,35

\* δεκαδάκτυλος 95,31

\* δεκακάλαμον 95,28-29  
δεύτεροι (= πλάγιοι), see ἥχοι δ.

δεύτερος, see ἥχος δεύτερος

\* διαπέντε 92,5

\* διαπασῶν 91,1 92,1,3-4 93,2

\* διάστημα 96,1

\* διατεσσάρων 92,4-5 93,10-11

\* διάφωνος 90,4,5  
διδασκαλία 45,3  
διδάσκω 3,2

\* διεξευγένων διάτονος 11,24 99,24

\* δι' ὁξειδῶν (dor) 101,11(app) cf 105,4  
διπλῆ 14,7 18,4

\* δις διαπασῶν 92,5-6  
δύο ἀπόστροφοι 26,2  
δύο κεντήματα 20,10

δώρος 5,4 28,1 31,1 32,5,11

\* " 96,9 97,3  
ἐκφώνησις 46,6

\* " 98,10  
ἐλαφρόν 22,14 26,9,19

\* Ἐλληνες 100,2  
ἐνειλητικός? 18,16-17

ἐνηχέω 33,20 48,8  
ἐνήχημα(v) 3,3 45 *passim*

47,2 48,7

- \* ἔξαδάκτυλος 95,33
- ἐπίχημα 33,21 45,9,11
- ἐπιβολή 3,4 45,11
  - see also ὑποβολή
- \* ἐπίτιρτος 103 *passim*
- \* ἐπόγδοον (dor) 101,2 (app)
- \* ἐπόγδοος 104,3
  - ἐπτάχορδος 103,1 103,18-19?
  - εὔειλητικός? 18,16-17
  - εύτονία 32,12-13
  - ἡδύτης 32,14
- \* ἡμισόλιος 105,2-3
- \* ἡμίολος 105,5
  - ἡμιπλαγιοτεταρτίζω 7,4-5 33,15-16
  - ἡμιτόνιον 13,10-11
  - ἡμίτονον 10,6 18,9 22,16
  - ἥχημα 9,3
  - ἥχοις, δέκα 2,22 6,21-22
    - ", δεκαέξ 6,20 35,45
    - ", δεύτεροι (= πλάγιοι) 6,3-4
    - ", κύριοι 33,2 51,1-2,5-6
      - 52-54 *passim*
    - ", κύριοι ἀπὸ κυρίων 36,2-3
      - 37,1-2,5 52,2-3
    - ", κύριοι κυρίων 37,6
    - ", κύριοι πλαγίων 42,1
    - ", μέσοι 6,18 33,6,11 37,3-4,8
    - ", μέσοι μέσων 40 & 44 *passim*
    - ", ὀκτώ 2,2,21
    - ", πλάγιοι 6,4 33,3-4,9 37,5
      - 51,3 52-54 *passim*
    - ", πλάγιοι ἀπὸ πλαγίων 37,2
    - ", πλαγιοι κυρίων 41,1
    - ", πλαγιοι πλαγίων 37,7
    - ", πρῶτοι (= κύριοι) 6,1 33,8
      - 37,12
  - 8,7      ήχοις 9,2,4 29,4 30,5,14 46,2
    - " πρῶτος 4,1,6 5,3 32,4-5,19
      - 47,1,11 48,2,11
    - " δεύτερος 4,2,7 5,3 32,6
      - 47,10,12-13 48,2-3,12 51,5-6
    - " τρίτος 4,2 5,4 32,8 49,1
      - τέταρτος 5,4-5 32,10 50,1
    - " πλάγιοις πρῶτος 5,5-6 6,4-5
      - 47,7,13 48,10
    - " πλάγιοις δεύτερος 2,4 5,6-7
      - 6,8 48,11
    - " βαρύς 5,7 6,11
      - πλάγιοις τέταρτος 2,16-17
        - 5,8 6,16
    - " μέσοις πρῶτος 7,1 33,12 35,7
      - μέσοις δεύτερος 2,5 7,7
        - 33,18,22 35,24
    - " μέσοις τρίτος 7,9 33,23 35,14,16
      - μέσοις τέταρτος 2,18 7,10
        - 33,25 35,28-29 50,4,8
  - \* ίαστιος 96,13 97,6
  - \* ιεροσόλυμα 1,5
  - ἴση 15,3,11 18,26 24,1
  - ἴσον 15,15 22,7
  - ἴσοτης 21,2
  - \* Ιωάννης ὁ Δαμασκηνός 1,7,9
  - \* Ιωσήφ 2,12
  - καβάλλιον 11,2 12,4
  - κατάβασμα 22,9
  - κέντημα 10,8-9 15,9 16,2,8
    - 22,13 see also δύο κεντήματα
  - \* κιθάρα 96,12 97,3,5
  - \* κιθαρφύλα 97,2
  - κλάσμα 18,10
    - ", μικρόν 22,16
  - see also ξηρὸν κλάσμα

- \* κομπισμός 93,4-5
  - Κοσμᾶς 1,6 2,8
  - κούφισμα 13,14 22,8
- \* κρᾶμα 92,3
- \* κρᾶσις 90,8-9 91,2 93,3
  - κράτημα(v) 14,6-7 18,5 22,12
    - see also μέγα κράτημα
- \* κροῦσις 93,1-2
  - κύλισμα 22,10
  - κύριοις see ἥχοις
- \* κωμῳδία 97,3
  - λύδιος 5,6 28,1-2 31,8 32,9
- \* " 96,11 97,6
  - λύρα 97,2
- \* Μακεδονικός 95,27
- \* Μαρσύας 94,2
  - μέγα κράτημα 13,11-12,14-15
  - μελένζω 9,5,6
  - μέλος 8,1 9,2,3,4 17,7 19,4
    - 31,2,6 32,5 54,6-7,9
- \* " 90,1,10 95,27
- \* μελωδέω 98,6-7
  - μελῳδός 23,4
- \* μέση 11,15 99,14 102,3
  - μέσον 21,3
- \* μέσος 96,11
  - see also ἥχος and ἥχοις
- \* μεσότριτος 97,2
- \* μέσων διάτονος 11,13 99,13
  - μιξολύδιος 5,7 28,2
- \* μονοκάλαμος 95,2
  - μουσική 2,10,14 10,4,5 11,2
    - 12,4 23,2 32,17
- \* " 101,4 103,17
  - μουσικός 32,22,24
- \* νεάτη 102,4
  - νενανώ 33,21

- \* νήτη διεζευγμένων 11,26 99,26
- \* " συνημμένων 11,19 99,19
- \* " ὑπερβολαίων 11,33 99,32
  - ξηρόν κλάσμα 13,9-10 22,11
- \* οἶνός 95,4
  - όλεγον 15,10,15 20,8-9 21,2,3
    - 22,7-8 25,1 26,6
- \* "Ολυμπίος 94,3
- \* "Ολυμπίος δ Πιερικός 95,7
  - όνδματα (τῶν ἥχων) 29,6
    - " , ἀπλᾶ 32,2-3
    - " , κύρια 4,3 5,1
    - " , τὰ κυρίως 30,1-2
- \* όνδματα τῶν καβαλλήων 11,1
- \* όνδματα τῶν τρόπων 96,8
  - όξεία 13,10,12 14,4 16,5,7
    - 18,1 20,1,7,8 22,8 25,3 26,6
- \* όξείς 93 *passim* 98,4
- \* όξύτονον 97,2-3
  - ὅργανον 37,10
- \* " 96,3,6,14 101,3 103,1-2,17,19
- \* όργανοποιέω 95,15-16
- \* Πάν 95,3
- \* παπίας 97,1
  - παρακλητική 22,16-17
- \* παραμέση 11,21 102,3
- \* παράμεσος 99,21
- \* παρανήτη 102,3-4
- \* παρυπάτη 102,2
- \* παρυπάτη μέσων 11,12 99,11
- \* παρυπάτη ύπατῶν 11,8 99,5
- \* πεντασύριγγος 95,18-19
  - πετασθή 13,12-13,14 14,5,7
    - 20,1,7 22,8 25,2 26,6-7
- \* Πιερικός 95,7
  - πλήρωμα 6,7,9-10
- \* πλυνθόν 97,4

πνεῦμα 10,7 13,3 15,3,4 17,2  
   18,3 19,3,5 20,4,6 22,5,13  
   26,14,15,23 27,1,4,18  
 πνεύματα, βαρυνόμενα 13,5 17,12  
   ", φωνήεντα 13,4  
   ", φωνητικά 17,11

\* ποιμενικός *see* σύριγξ  
 ποιότης 30,6

\* πολυκάλαμος 95,2-3  
 ποσδήης 30,5  
 ποσούμενος 22,4

\* προσλαμβανόμενος 11,4 99,1

\* πτερόν 96,8,13 97,6,6-7

\* Πυθαγόρας 100,3

\* Πυθαγορεῖος 101,8

\* Πυθαγορικός 101,6

\* Σαγγάριος 95,36

\* σάλπιξ 96,7,9 97,1,4

\* Σάτυρος 94,3  
 σεῖσμα 18,30 22,16

σημάδιον 12,3 26,21 (τὰ μεγάλα σημά-  
   δια) 27,8-9,10,13

στοιχεῖον 10,7-8 13,3 17,10 22,6

συγγένεια 29,6-7

\* σύγκρασις 90,1-2,3,6

\* συλλαβή (dor) 101,11(app) 101,11-12(do)

\* συλλαβή 101,11,11-12 103,5-6

\* συμφωνία 90,7 91,8,10 92,2 93,3  
   93,10-11

\* σύμφωνος 90,4,7,9 91,2,4

\* συνημμένων διάτονος 11,18 99,17  
 σύρμα 22,12

\* συριγκοειδής 95,9

\* σύριγξ 95,1 97,6  
   ", ποιμενική 95,29-30

\* συρίζω 95,37

\* σφαῖρα 100,14,20

\* τάσις 92,8  
 τέλειον 21,4  
 τελειώδη 6,11 7,4 33,15 34,6  
 τέλος 6,15 7,2 33,14

\* τομή 95,35  
 τόνοι, ἀπλοτ 12,1-2 14,1 15,1  
   ", σύνθετοι 12,2,9

τόνος 9,7 10,1,3,5 13,1,7 15,5  
   17,1,7 19,3 21,1 23,3,4,6,11  
   26,5,18,24 29,2

\* τραγῳδία 97,1

\* τρέτη διεξευγμένων 11,22 99,22  
   " συνημμένων 11,16 99,15  
   " ὑπερβολαίων 11,22 99,23  
 τροπάριον 9,5  
 τρόπος 55,17  
   " 93,9 96,5 96,8

\* θραυστις 97,5  
 ὑπαλλαγή 33,10

\* ύπάτη 102,2 103,4 105,2  
   ύπάτη μέσων 11,11 99,9

\* ύπάτη ύπατῶν 11,6 99,3  
   ύπατῶν διάτονος 11,10 99,7

\* ύπέρ 96,16

\* ύπερβολαίων διάτονος 11,31 99,30

\* ύπερμέση 102,2-3 103,3

\* ύπερμεσον 21,3  
   ύπό 96,15

\* ύποβολή 6,13 7,2 33,12 46,3  
   *see also* ἐπιβολή  
 ύποδώριος 5,2 28,1 31,3  
   32,6,13,19

\* ύπολύδιος 5,4 28,1 31,9  
   32,9-10,15-16

\* ύπομενοιδίος 5,7-8 28,2

ύπορροή 6,5-7

ύποφρύγιος 5,3 28,1 31,8 32,8,14

ύψηλή 16,3,10 22,13-14

ύψηλόν 10,9 27,2

φθογγή 30,10,16 34,7

φθόγγιος 32,13,16,23 45,14 46,4

\* " 90,2 91,2 95,17 98,3,8  
103,16,20

φθορά 6,19 10,10 16,2 33,7  
34,2,4,11 35,2

" , πρώτη 34,3 35,20

" , δευτέρα 35,21

" , τρίτη 35,32-33,34

" , τετάρτη 35,33-34,39

φθοραί φθορῶν 37,4,7-8 39 *passim*  
43 *passim* 51,4

\* φιλόλαος, ὁ Πυθαγορικός 101,6

\* φρᾶγμα 90,6 91,3,5,6,9,12,14 92,6  
φρύγες 94,1,4

φρύγιος 5,5 28,1 31,6 32,7

\* " 97,4

\* φωνή 96,7,11 97,6  
φωνήεντα see πνεύματα φωνήεντα

φωνητικά see πνεύματα φωνητικά

χαλεπότης 32,15

χαμηλή 26,10,20 27,3

χαμηλόν 22,14

\* χειλόω 95,33

\* χείλωσις 95,9,11

χειρονόμημα 15,14

χειρονομία 25,15

χορδή 10,5 32,24-25

\* " 101,2,5 103,2,16 104,1,2 105,1  
ψάλλω 2,5,14,18,22 3,2 6,14,21 7,8  
φαλμψδία 45,16





